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EDITED BY
FRANK P. FOSTER, M.D.

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Lectures and Addresses.

LECTURES ON HUMAN AUTOMATISM.

DELIVERED AT THE LOWELL INSTITUTE, BOSTON,

By WILLIAM B. CARPENTER, M.D., LL.D., F.R.S., ETC.

LECTURE I.

The Question Stated.—Is the Body of Man the Minister and Instrument of his Mind; or is his Mental Action a function of his Bodily Organization? Relation between Mental Activities, or *Psychoses*, and Physical Changes in the Nervous System, or *Neuroses*. Analogies between Bodily and Mental Automatism. Testimony of Consciousness to the Independent Personality and Self-directing power of the *Ego*: how far is this trustworthy?

Of all the philosophical questions on which the intelligent thought of the present generation, and especially of its younger members, is at present exercising itself, there is none that seems to me more fundamental in its character, or more momentous and far-reaching in its issues, than that which I have undertaken to bring before you; and I know this to be the conviction of many who have come here with the desire to learn what light can be thrown on it by one who has made the bodily and mental constitution of man the special study of his life. To such I dare not promise more than *help*. Every student of human nature knows that it contains *penetralia* he can not enter, depths he can not fathom. But it is something to learn the limits of our inquiry, and to make clear what the physicist would call its "critical points"; something, too, to find ourselves helped in the pursuit of it by experiences whose very familiarity often prevents our recognition of their importance. And just as the Alpine climber who meets with an obstacle to his direct progress, in the form of a perpendicular precipice or a deep crevice, may find a way round it, so I think I shall be able to show you that we may often reach a safe conclusion by some indirect path, when the direct road is closed against us. And it will be my special object to point out to you that some of these assured convictions which no one ever thinks of seriously calling in question—such, for example, as the certainty which every one feels as to the existence of a world external to himself—rest on a basis not one whit more secure, logically, than that of man's (limited) self-determining power, although this is supposed by many to have been completely exploded by modern scientific research. If there be any among my auditors who think it strange that a physiologist should regard man as the possessor of any measure of moral freedom, and who wonder how an evolutionist can claim for him any higher place in nature than that which he owes to the greater complexity of his automatic mechanism, I would ask them to suspend their judgment until I have shown what seems to me to be the complete conformity of the doctrine I advocate with those fundamental *facts of consciousness* which, in the words of John Stuart Mill, "are much more real than anything else—the only things which we directly *know to be real*"; and which therefore constitute, in my view, the "base of verifi-

cation" to which all our logical triangulation must be worked back in order to test its validity.

The questions we have to consider are, (1) whether man *in his entirety* is an automaton; and, if not, (2) what part of his bodily and mental activity is automatic, and how his automatism may be directed and controlled. But we have first to frame such a precise definition of that term as may enable us to pursue our inquiry with a clear and distinct conception of the meaning it conveys. Such a definition is not adequately furnished by its etymology; which, as you all know, only implies the power of self-motion. Now, as we are all "self-moving" creatures, we are all in that sense *automata*. But this is not the sense in which the term is used scientifically; and I think that in defining an automaton as "a machine which has within itself a power of action, under conditions fixed *for* it but not *by* it," I shall call up in your minds the precise idea which I myself attach to the term, and which I mean to make the basis of our discussion.

This is precisely the view which a certain school of philosophy takes of the nature of man. It regards him as a self-acting machine, whose operation at each moment of its existence is the necessary response of its *then* constitution to external agencies; that constitution being originally determined for him by his "heredity," and subsequently modified by his "environments"—that is to say, by the various influences which have been brought to bear upon him during his whole life, but especially during that early stage of it in which his original constitution is most capable of being modified by external agencies, and in which, by the direction thus given to the processes of growth and development, those modifications tend so to fix themselves in his constitution as to exert a persistent influence upon his whole subsequent existence.

Now, if that be the whole truth of the case, it is clear that man *is* an automaton, his conduct being in no degree determined by himself, but determined for him by influences which he has no power to control or direct, and for which he is therefore in no degree answerable. Strange as it may seem to many of you, this doctrine is explicitly affirmed to be the only one which a really scientific man can now hold; those who, like myself, attach some value to those facts of consciousness which are to us "more real than anything else, the only things we *know* to be real," being pitied as the victims of a self-delusion which arises out of the erroneous shaping of our early beliefs, and which will soon die out with other exploded errors. It is to me not a little singular that one of the most distinguished members of this school, who now maintains that the state we call volition is not the cause of the motion which follows it, but merely the "symbol in consciousness" of that state of the brain which is the immediate cause of that act (just as the blowing of a steam whistle signals, but does not cause, the starting of a locomotive), should have abandoned the firm position he formerly took, that "man's volition counts for something as a condition in the course of events"—a belief which, he said, "can be verified experimentally as often as we like to try, and which, therefore, stands upon the strong-

est foundation upon which any belief can rest, and forms one of our highest truths."* And I appeal to the consciousness of every one of you whether it does not give you the most distinct and explicit assurance, as often as you like to try the experiment, that your will *has* a power over the movements of your body. Now, when I speak of "the will," I wish you to understand that I mean the *Ego* in action. I do not regard the will as a distinct *faculty*. It is merely that *state* in which the *Ego* is purposely and expressly acting either upon the body or upon the mind. I shall show you by and by what a parallelism there is between these two forms of activity; and I think that you will all recognize it in that "sense of effort" which we experience alike in the performance of bodily movements which are difficult to us, and in the keeping our attention fixed upon some mental object from which some powerful attraction would else withdraw it. That line of thought, however, I shall not pursue at the present moment, as I wish to place before you a case in which purely mechanical automatism and the asserted automatism of human action can be brought into direct contrast.

I have a friend who is accustomed to recreate himself occasionally by playing upon the chamber-organ. You know that the pipes of an organ are made to sound by the blowing of air through them; and that its wind is provided by the action of bellows, which send air into the "wind-chest" from which the pipes are supplied. Now, when the player is using a good many stops there is a considerable demand for wind, and the bellows must be worked quickly; but if he is playing softly on a few pipes, the wind goes out much more slowly, and a very much slower action of the bellows is needed. The quantity of wind in the wind-chest is indicated by a little weight called a "tell-tale," which moves up and down within view of the bellows-blower; and he is thus informed whether a large or small supply of wind—requiring much or little action on his own part—is required. Now, my friend used to be sometimes troubled by the inattention of his bellows-blower—a female servant who was summoned for the purpose. Whether it was that, being charmed with his music, she gave her attention to his performance instead of to the indications of the "tell-tale," or whether her thoughts were occupied in some entirely different manner, I do not know; but she used to vex him not infrequently by letting the wind out (as we call it), so that the sound of the organ would suddenly cease with a very unpleasant sort of expiring sigh. Now, being rather tired of this, and having other reasons for wishing to be independent of a servant, my friend took counsel with a mechanic, and established an automatic bellows-blower, worked by water-power, which should do exactly the same thing mechanically that the human bellows-blower did by voluntary movement, the apparatus being so arranged (I dare say that many of you are acquainted with it, as I believe it is used here, as well as in my own country, for church organs) that the up-and-down movement which works the bellows is more or less rapid as the demand for wind is greater or less. At first this apparatus did not answer very well. Not having been quite

rightly fixed, it worked stiffly, and sometimes would not work at all; but a little "doctoring" on the part of its maker soon set it right, and it has ever since worked to my friend's entire satisfaction. Now, supposing that apparatus to be incased within a human figure; you would then have a real "automaton," which would do, under conditions purely mechanical, exactly the work which the human bellows-blower ought to have done, but failed to do. And the question I have to bring before you is, whether *her* action was really as automatic as that of the machine, so that for her failure to perform the duty with which she was charged she was no more responsible than was the water-blower for the fault of its first fixing. *Her* failure was due not to any defect in her bodily constitution; she had good sight to see the "tell-tale"; she had plenty of muscular strength to work the very easy bellows; she had the knowledge that she was expected to exert this when the "tell-tale" warned her that the wind was low; and she did not contest the obligation to do the work imposed upon her. What, then, was wanting? Simply *the mental determination to keep her attention fixed upon the object*. Here was the "critical point;" for it is on the power which I affirm the *Ego* to possess, of *fixing his attention*, that the regulation, by his personal effort, of all his intellectual, moral, and volitional activities seems to me to depend.

We are told, however, by those who hold the doctrine of automatism, pure and simple, that the human bellows-blower's work could be done just as well if her mind had no concern in it whatever, the train of nervous mechanism supplying all that is really necessary, the will being only the "symbol in consciousness" of the outgoing of her brain power, and her conscious recognition of the call for exertion, with the purposive response to it, being mere "surplusage." According to this view, it was not necessary that she should either *see* the "tell-tale" or *attend* to its movements, the visual impression made by them upon her retina being sufficient to call forth through the optic nerve that change in the nervous center which we call reflex action, and thus to excite the respondent movement through the muscular apparatus. Supposing the nervo-muscular apparatus to be in good working order, not only the working of the bellows, but the regulation of it by the movements of the "tell-tale," might be executed without any more direct participation of *mind* in them than there is in the action of the self-regulating water-blower.

Now, I assure you that this is no parody upon the teaching of the automatist school, but is merely the explicit application of its general doctrine to a particular case. And yet I can not help thinking that you will see that this is one to which our "common sense" refuses its assent—what I mean by "common sense" being that general "resultant" of our experiences upon which we are constantly falling back (as I shall have occasion to show you during this course) as the test of truth and the guide of conduct.

It is remarkable, however, that the views taken of this subject by different members of that school are by no means identical. The late Professor Clifford, who was in some respects the most prominent exponent of it, reproduced in another form the "pre-established harmonies" of Leibnitz,

* Professor Huxley's "Lay Sermons," p. 160.

denying that mental and bodily activities can have any possible relation to each other. In a lecture on Mind and Body, which I myself heard, he maintained that the mental facts go on by themselves, and the bodily facts go on by themselves, as it were, on two different platforms; and affirmed—I quote his own words, that I may not misrepresent them—that, as “the only thing which can possibly be conceived to influence matter is either the position or the motion of surrounding matter,” the statement that “the will influences matter” is simply “nonsense.” In taking this position, Professor Clifford seems to me to have been dominated by his purely physical preconceptions. He was a most accomplished mathematician, and an able physicist, who had gone into the study of psychology with the prepossessions derived from his physical training, and without the correction which the study of physiology, and especially that of the intimate *nexus* between mental and bodily states, would have afforded him. However great was Professor Clifford’s authority upon the subjects he had especially studied, I deny his claim to the knowledge of everything about matter and its relations, and his right to affirm that mankind at large are wrong in the conviction that the movements of their bodies are to some extent directed by their minds. On the other hand, there are eminent members of the automatist school who freely admit, as Professor Huxley once did, that man’s volition determines his bodily action; their contention being that his volition is itself determined *for* him and not *by* him. And Professor Huxley, while now denying that man’s will can prompt his brain to call his muscles into action, still holds to the belief that certain physical changes in his nervous mechanism can call forth those affections of the mind which we call sensations—giving us, in fact, terms which we shall find it extremely convenient to use in this inquiry. He designates that state or affection of the nervous system by which it receives and transmits impressions made on it by external agencies as a *neurosis*, using this term to express the physical affection of the nervous system which is the immediate antecedent of the mental state we call sensation, without going into any question as to what the particular nature of that affection is. Sensation, on the other hand, being a purely mental condition, he very happily (as I think) designates the affection of our consciousness which is called forth by the *neurosis* as a *psychosis*; and the application of this term may be extended to any other mental affection called up by brain changes, as in the case of those phenomena which I shall hereafter describe under the term “unconscious cerebration.”

Now, as Professor Huxley, in his latest (Belfast) lecture upon this subject, distinctly affirmed it to be a fact, based on the normal experience of healthy men, which we may verify experimentally as often as we choose, that running a pin into one’s finger produces that unpleasant sensation which we call a prick—such *psychosis* being, in the normal or healthy condition of man’s organism, the uniform sequence of that particular *neurosis*—I find myself quite unable to understand why, in that same lecture, he should have denied the converse proposition which he had previously affirmed (by implication) upon the very same basis of universal experience—namely, that in the performance of a volitional

act a *psychosis* calls forth a *neurosis*. To me it still seems clear that, in the act of “willing,” the determination by the *Ego* to execute a given movement expresses itself in the nervous change which calls forth the muscular contraction; the sequence of the *neurosis* upon the *psychosis*, in this case, being just as constant as the sequence of the *psychosis* upon the *neurosis* in the other.

Again, Mr. Herbert Spencer and Professor Huxley alike take their stand upon the doctrine of the universality of causation as consisting in unconditional sequence—a doctrine which every man of science accepts in regard to physical causation, but which seems to me utterly inapplicable to mental phenomena, which can not be reduced to any common measure with material changes. When Professor Huxley, in his Belfast lecture, spoke of man as nothing but “a part of the great series of causes and effects which, in unbroken continuity, composes that which is, and has been, and shall be—the sum of existence,” I have no doubt that he expressed Mr. Herbert Spencer’s conviction as well as his own.

Now, what seems to me the inevitable corollary from this doctrine was explicitly set forth in the correspondence published many years ago between Miss Martineau and Mr. Atkinson. I quote their words, because they express, more concisely and perspicuously than any others I have met with, what I think any one who considers the matter must see to be the necessary deduction from the purely automatist view of the case. “I am what I am: a creature of necessity; I claim neither merit nor demerit.” “I feel that I am as completely the result of my nature, and impelled to do what I do, as the needle to point to the north, or the puppet to move according as the string is pulled.” “I can not alter my will, or be other than what I am, and can not deserve either reward or punishment.”

Such is the doctrine of which the consideration forms the special subject of this course. And the view to which I shall endeavor to lead you is this: that, while there is a great deal of truth in it, we can not accept it as the whole truth; that while a great deal of our mental as well as bodily action *is* determined by our heredity, by the conditions of our education, and by the environments in which we subsequently find ourselves—that, in fact (as John Stuart Mill was accustomed to maintain), what a man will do in any particular juncture may be predicated from his formed character—yet that (as he came explicitly to admit)* man has a power over the formation of his character. I shall endeavor to show you that, in shaping the course of his conscious life, man has a power of self-determination, which depends essentially upon the *fixation of his attention* upon

* See especially the account given in his “Autobiography” of his course of thought on this subject. After telling how the doctrine of “determinism” weighed him down in his earlier years “like an incubus,” making him feel himself “scientifically proved to be the helpless slave of antecedent circumstances,” he narrates how the light broke in upon him in the perception that “our own desires can do much to shape those circumstances; that we have real power over the formation of our character; that our will, by influencing some of our circumstances, can modify our future habits and capacities of willing.” This position is more fully developed in chap. i of Book VI of J. S. Mill’s “System of Logic.”

the motives which automatically present themselves before him; thus giving a preponderating effect to those which he knows *ought* to prevail. Toward this conclusion everything I shall bring before you will lead more or less directly; so that in the end you will find it so completely in harmony with a number of separate and independent probabilities as not only to justify but to require our acceptance of it, notwithstanding that it may seem to be negated by what is called logical proof—the fallacy of which seems to me to lie in its fundamental assumption of the identity of moral with physical causation.*

Now, in what remains of our present meeting, I wish specially to bring before you the question of the relation of our mental to our bodily organism. Every one feels that he has a mind and a body; and every one knows, when he comes to think about it, that he is *directly* conscious of what is taking place in his mind, while he is only *indirectly* conscious of what is taking place in his body; and thus he comes to regard his mind as his true *self*, and to look upon his body as external to that self. Although we refer our sensations to particular localities in our bodies, yet it is not *in* our bodies, but *through* our bodies, that they are really felt as affections of the conscious mind. Thus, when we speak of feeling the prick of a pin in the finger, what we really feel is a change in our own state of sensorial consciousness; and this change we are led by the automatism of our constitution to refer to a certain part of our bodily fabric in which it seems to ourselves to have originated. I must not now go into a discussion of the mode in which we arrive at this or many similar conclusions; but shall have to appeal constantly to the individual experiences of each one of you, and to the fundamental facts of his (or her) own consciousness. And those (if such there be) who expect me rather to adduce some striking and novel phenomena than to go over ground already so thoroughly trodden, may be asked to recollect that it is only by an appeal to the individual consciousness of each of my hearers that I can hope to lead him (or her) to my own conclusions upon these points; because no one can make the consciousness of another *his* consciousness. Every one thinks and feels for himself. He may, to a certain degree, come to know what another person is thinking and feeling; but no one can ever penetrate the thoughts and feelings of another fully and entirely, however intimate his relation to that other may be. He can only judge of the thoughts and feelings of another by those outward manifestations of them which come to him through that other's movements, are perceived through his own sensations, and are then interpreted through his own intellectual and emotional sympathies.

The relation between our minds and our bodies is maintained through that wonderful piece of organic mechanism—the nervous system. And this mechanism has two principal modes of operation: one, that by which it makes us aware of what is taking place in the external world (including our own bodies, which, as I have just pointed out, are really external to our mind), through the apparatus of

sensation; the other, that by which it expresses the determination of the mind, through its power over the apparatus of motion (I confine myself for the present to the *volitional* determination, the power which the Ego possesses of calling forth purposive muscular movement). You know that the muscular apparatus is that by which the limbs and other movable parts of our bodies are put into action, those muscles acting upon a set of bony levers which constitute the skeleton; and, in fact, the aggregate of the nervo-muscular apparatus (including the organs of sense and motion) would—if it could sustain itself—be *the man*.

But it is impossible that such should be the case. A great and complicated apparatus is necessary for the building up, in the first place, and for the subsequent maintenance, of this wonderful fabric, of which the nervous system constitutes the center, being the part with which our minds are in immediate and direct relation. The nature of that relation—the mode in which a *neurosis* gives origin to a *psychosis*, or a *psychosis* produces a *neurosis*—is the great fundamental problem of our dual nature, a mystery which I scarcely expect that any one will ever solve.

(To be concluded.)

Original Communications.

CARBOLIC ACID IN THE TREATMENT OF WOUNDS.

By WILLARD PARKER, M. D.,

EMERITUS PROFESSOR OF SURGERY IN THE COLLEGE OF PHYSICIANS AND SURGEONS, NEW YORK.

IN limiting my remarks to carbolic acid, I wish to be understood as referring to that agent chiefly as the representative of a class of antiseptics, germicides, etc., which have come into use within the past few years in the treatment of wounds, more or less in conformity with the doctrines and practice taught by Professor Lister. I single it out for the reason that it is better known by the profession, and more closely bound up, so to speak, with what we speak of as Listerism, than the other drugs that are used for like purposes. Furthermore, since antiseptic surgery did not come into vogue until after I had in great measure withdrawn from the active practice of surgery, I would premise that my impressions in regard to its value are drawn not so much from my own personal experience with it as from a comparison of the results which it now enables my younger colleagues to obtain with those which were secured in the practice of surgery during the many years that I was busily engaged in surgical work before anything was known of the Listerian system.

I will state, at the outset, my decided conviction that the use of carbolic acid is a valuable adjuvant in surgical practice. As a mere disinfectant, carbolic acid seems to me to be in no way superior to a number of other agents, but probably inferior to some of them; as an antiseptic and detergent, however, I am inclined to believe that it is not surpassed by any other substance. As to its supposed spe-

* "In itself," says Professor Huxley ("Lay Sermons," p. 160), "it is of little moment whether we express the phenomena of matter in terms of spirit, or the phenomena of spirit in terms of matter."

cific property of allaying or antagonizing the inflammatory process, apart from its antiseptic action, my impression is that the stock of well-ascertained facts now at our command is too small to warrant our drawing any decided conclusion. It is to its germicidal properties, in my opinion, that its efficiency in averting inflammatory complications is mainly due. It is valuable also as a topical stimulant to ill-conditioned suppurating surfaces, such as the walls of cold abscesses and the like, in patients broken down in health.

As a matter of course, a germicide is needed only under circumstances that make it a reasonable inference that morbid germs are actually present in the air about the patient, or in the implements and appliances that are used in dressing the wound; carbolic acid, therefore, is of the most signal advantage in the case of patients who have to be treated in close, ill-ventilated rooms, or within the range of exhalations from diseased surfaces in other patients—or, in general terms, under any circumstances in which the sufferer is compelled to breathe a confined atmosphere, perhaps contaminated with morbid animal effluvia. The use of this agent must, therefore, be eminently valuable in the treatment of the wounded in hospitals, in tenement-houses, and in other localities of a like unfavorable hygienic character.

I am not yet convinced that the use of the spray is of any direct advantage, especially in cases where the patient's constitution and general health are such as they should be, and the wound is kept perfectly clean; but there can be no doubt, I think, that not only the spray, but also every one of the many minutiae that are associated with Listerism, are of the very greatest benefit, in an indirect way, by calling the attention of the operator, of the assistants, of the bystanders, and of the nurses, all, in short, who are in any way connected with the patient's personal surroundings, to the never-ending necessity of that cleanliness which is next to godliness—calling their attention to this necessity, and keeping it fixed there throughout the whole course of the case.

On the whole, it does not yet appear to me that operative surgery, leaving out of account those operations in which the abdominal cavity is opened, is more successful under Lister's method of practice than it used to be before that system came into use; certainly, in the case of clean wounds, well cared for and treated in the country, it is my decided impression that no better results can be got with Listerism than without it. In saying this, I do not lose sight of the fact that, no matter how favorable the surroundings may be, pent-up and putrescent material involves terrible dangers. Under such circumstances carbolic injections are unquestionably of the greatest value, but from this point of view there is nothing new about antiseptic surgery; in former times the chlorine preparations and other detergents and antiseptics doubtless proved equally efficient preventives of septicæmia.

Like everything else that has the charm of novelty, the use of carbolic acid has been pushed, I believe, beyond the limits that will in the future be set upon it; at present the strict measure of its value does not seem to me to be fully settled, nor has it been quite determined under what circumstances it should or should not be resorted to. I am not yet convinced that its employment is imperative as a

routine measure, but am quite willing to concede to it the character of a most valuable resource in cases that plainly call for it.

ANTISEPTIC SURGERY.

By H. B. SANDS, M. D.,

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In the brief remarks which I am allowed to make in the present communication, I propose to discuss the question of antiseptic surgery under the following headings, namely: 1. Principles. 2. Methods. 3. Results.

1. *Principles.*—On this topic my views are perhaps entitled to little weight, as I have never made it the subject of original experimental investigation. But an extensive experience in the management of wounds according to Lister's method, and other similar methods, has convinced me that their success is mainly due to their agency in preventing putrefaction. Other explanations have, however, been offered by able observers. Markoe believes that the beneficial influence exerted by the local application of carbolic acid depends on a specific power which it possesses "of modifying vital actions" and "controlling inflammation." This statement appears to me somewhat unsatisfactory. A more definite explanation is offered by Prudden, who, having proved by experiment that certain antiseptics—namely, carbolic acid and salicylic acid—hinder the amoeboid movements of the white blood corpuscles, and retard or prevent their emigration from the blood-vessels, suggests that the efficacy of these substances in the treatment of wounds may be due in part to their action in lessening suppuration, so far as this depends upon cell emigration and not upon cell-proliferation. A serious objection to this view is the clinical fact that the direct and continued application of carbolic acid to wounded surfaces promotes suppuration, and so far retards recovery. Perhaps no theory on this subject is beyond criticism; but, in the present state of our knowledge, that offered by Lister seems to me the least objectionable. The contrast between the behavior of a subcutaneous lesion and an open wound left without protection can be explained only by the occurrence of putrefactive changes in the latter, and their absence in the former; and the fact that wounds which run an aseptic course are comparatively free from danger is undeniable. I also adopt, without reserve, the germ theory of putrefaction, and believe that, when this kind of decomposition occurs in an open wound, it is caused by the entrance of air containing solid particles which act as ferments. That this action is not invariable, and that, even when germs are freely admitted to wounds, their putrefactive power is neutralized wholly or in part by the living tissues, may be conceded without denying the agency of these bodies in causing putrefaction under favorable conditions, as, for example, when secretions are retained in a wound to which atmospheric air is admitted. The aim of antiseptic surgery is simply to prevent these putrefactive changes.

2. *Methods.*—Lister's method, which is familiar to all, is strictly scientific, and is an admirable adaptation of the principles on which it is founded. It seeks to exclude the living

germs or ferments from the wound, thereby preserving it aseptic; and no pains are spared to accomplish this result. The minute details and precautions insisted on by Lister have excited opposition and ridicule; yet they are the logical outcome of the theory which underlies his practice. And I gladly testify, from personal experience, to the excellence of this method, which, when it can be thoroughly carried out, is almost uniformly successful. But it is troublesome, complicated, and expensive. In common with many others, therefore, I have sought simpler and cheaper methods. For several years past I have substituted irrigation for the spray, without any apparent disadvantage. I have almost invariably employed carbolic acid for disinfecting the hands, the instruments, and the wound during operations, believing this antiseptic to be superior to all others for this purpose. As a dressing for wounds that can be closed, I have found nothing equal to iodoform. A piece of iodoform gauze—10 per cent.—six to eight layers in thickness, is laid over the line of union. Over this is placed a thick pad of salicylated absorbent cotton, then a piece of gutta-percha tissue, and finally a bandage. After operations involving such loss of integument as to prevent closure of the wound, I have used as applications to the raw surface carbolized oil (1 to 10), iodoform gauze, naphthalin, and an aqueous solution of corrosive sublimate, 1 to 2,500. Of these, the one last mentioned possesses many advantages. It is odorless, highly antiseptic, and, so far as I am aware, causes no toxic symptoms, even when used in considerable quantity.

As a rule, I employ catgut ligatures which have been soaked for several months in carbolized oil. Silk ligatures, prepared by being boiled in a five-per-cent. solution of carbolic acid, as recommended by Czerny, I have used extensively, and have generally been satisfied with the result. They are stronger than catgut, and are more easily tied. But occasionally they act as foreign bodies, and cause abscesses after the wound has healed; and on this account I have nearly abandoned their use in wounds that are expected to unite by adhesion. The same objection applies to catgut ligatures which, according to a recent suggestion made by Lister, have been treated with a one-per-cent. solution of chromic acid, and afterward with sulphurous acid. These, according to my observation, often fail to undergo absorption, and act as irritants. A firm but soluble catgut ligature, which can be kept dry until needed for use, is still a desideratum. Am Ende, of Hoboken, lately sent me some samples of dried catgut which had first been soaked in carbolized oil, and afterward covered with a film of stearin. A limited trial of them leads me to think that they will prove efficient.

To secure drainage, I most often employ tubes of India-rubber, as recommended by Lister, and find it advantageous to insert tubes of large caliber, being careful to remove them as soon as practicable. As a rule, especially in deep wounds, free drainage is doubtless indispensable. But it may be expedient, in certain cases, to close the wound completely, provided it is aseptic. Thus, I have several times tied such arteries as the common carotid, the femoral, and the lingual; and, without using a drainage tube, have obtained complete primary union under a single dressing.

During the past year I have treated six compound fractures of the leg, and one compound fracture of the thigh, merely by thorough syringing of the wound with a five-per-cent. solution of carbolic acid, and then applying an iodoform dressing. All these patients recovered without suppuration.

Finally, I disturb operation wounds as little as possible, using infrequent dressings, and avoiding injections, unless there is evidence of putrefaction or copious suppuration.

3. *Results.*—Alluding only to my own experience, I can testify to a wonderful improvement wrought in the management of wounds by antiseptic surgery. Much study and practice are required to follow even its simplest methods; but, when these are faithfully observed, the results are most gratifying. Primary union is now the rule where formerly it was the exception; diffuse inflammation and suppuration are rare, even after severe injuries; operations once formidable now excite little apprehension; and that dreadful scourge, pyæmia, has been nearly abolished. In the surgical service of the Roosevelt Hospital, containing seventy-five beds, no operation performed during the last three years has been followed by septicæmia or pyæmia.

These results are surely surprising, and need hardly any comment. Many years ago it was the fashion to decry the microscope; but the condemnation came only from those who had never learned to use the instrument. In a similar manner, much of the opposition to antiseptic surgery at the present day springs from ignorance and prejudice, while those who have applied its principles most carefully have obtained the largest measure of success, and unite in acknowledging its achievements. It would be unwise to deny that further improvement in the treatment of wounds is possible, but it may be safely affirmed that, until something better shall be discovered, antiseptic methods will continue to prevail, and also that the methods of our predecessors are not likely to be revived.

REMARKS ON CARBOLIC-ACID, IODOFORM, AND CORROSIVE-SUBLIMATE DRESSINGS FOR WOUNDS.

By ROBERT F. WEIR, M.D.,

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It is no longer an open question concerning the germ theory in connection with the treatment of wounds. The principal point now is, What is the best method of either preventing or arresting the development of these germs? Up to quite a recent period, surgeons strictly following Lister, as was just, employed carbolic acid for this purpose, and the use of this arrester of bacteric life became well nigh universal, and it is not yet deposed from its well-earned pre-eminence. An individual experience since 1877 in the wards at the Roosevelt, New York, and Bellevue Hospitals has taught me to lean in the main securely on this germicide. Yet it has, as all germicides so far known have, the disadvantage of occasionally acting toxically on patients. Within the past year I have had to record a speedy death which was due to carbolic-acid poisoning, after an operation for the removal of a tumor. Two other narrow escapes have

also brought me to listen to the claims of other antiseptics, coincident with the desire to simplify the somewhat complicated details of a full Lister dressing. A number of such new antiseptics have been of late brought to our notice. The two most important are iodoform and the bichloride of mercury (corrosive sublimate). It is not intended to give at length the records of the experience with these germicides, but merely to indicate some points connected with each that have been evolved by working with them. Iodoform has practically been in use in wound dressings since 1880, and its virtues as a powerful antiseptic have been generally acknowledged, but, in consequence of the number of mishaps that have occurred in the hands of various surgeons, a diminished freedom in its use has recently occurred, so that now, instead of using, as Mosetig-Moorhof and Mikulicz advised, from 10 to 20 grammes of the powder over a wound, incrusting to a depth of 1 to 2 millimetres, the caution comes from Neuber himself that an amount beyond 3 grammes (about 45 grains) can not be exceeded with safety when used on the surface of a wound. Under the use of iodoform I lost by death last winter, after a clitoridectomy, a young patient with the cerebral symptoms peculiar to poisoning by this drug; and, later, recognizing the cause in an amputation at the knee joint, followed by delirium, rapid pulse, etc., without other cause, removed the dangerous dressing and restored the patient. Such accidents have been met with by other surgeons, though the percentage is small compared with the total number of cases treated. Küster,* of Berlin, has encountered toxæmic symptoms even after its employment in minute doses, and he says that under its use erysipelas and phlegmonous inflammations have appeared, which, under the Listerian treatment, have been of the greatest rarity. So many accidents occurred in his ward that a return was made to the carbolic acid. In the "Lancet" for October 7, 1882, it is editorially remarked, in connection with the subject of surgery in Germany, that "Germany seems to have taken up with zeal the question of a substitute for carbolic acid, and proposals have from time to time been made as to the use of salicylic acid, thymol, eucalyptus oil, and, more recently, of naphthalin and a preparation of common turf. Iodoform was supposed to have solved the difficulty; but, despite its value in healing wounds, it occasioned such derangements in the system generally that it fell into disfavor."

The difficulty of readily recognizing the symptoms of a poisonous dose of carbolic acid or of iodoform led to experiments early in the spring of the year at the New York Hospital with a new antiseptic. This was corrosive sublimate, the effects of which are quickly detected if acting poisonously, and the essay was based upon the trial tests made of various germicides by M. de la Croix,† an excerpt from which was published in the "Lancet" for March 4, 1882.

* "Centralblatt f. Chirurgie," 1882.

† The list is as follows: 1 gr. to 35 permanganate of potassium.

- 1 " " 478 acetate of aluminium.
- 1 " " 343 salicylic acid.
- 1 " " 410 iodine.
- 1 " " 431 chlorine.
- 1 " " 10 phenol.
- 1 " " 2,525 corrosive sublimate.

This experimenter undertook a series of trials with a number of antiseptics, with the result that 1 gramme of corrosive sublimate to 2,525 grammes of water was capable of killing bacteria, showing it thus to be the most potent of all. My results with it in three compound fractures of the thigh and six of the leg were very encouraging, and, on my return from my vacation, this treatment was resumed; and the result, so far, confirms a recent report on the subject by Kümmel, of Hamburg, at the last congress of the German surgeons,* giving a large and satisfactory showing concerning the value of this dressing. In over two hundred cases treated successfully by this method, Kümmel and Schede have met with but two slight cases of salivation.

The foregoing remarks have been made as a preface to the practical portion of detailing the writer's present mode of dressing wounds. First of all, it must be said that the carbolic dressing is considered by far the most reliable one; it has sundry inconveniences, some of which have been overcome, but many will continue to exist, due to the volatility of the antiseptic used.

In all incised wounds, or those whose depths can be readily reached by irrigation, the spray is omitted;‡ but this only takes place at the first dressing; all changes in the dressing, if an aseptic condition is maintained, are made under the protection of a spray,‡ as it is felt that the irregularities or anfractuositities of a partially healed wound are not to be easily protected or cleaned out by irrigation. All forcible injection of a closed wound through drainage tubes is carefully avoided. It is in this way that carbolic-acid poisoning is often brought about; hence, to assure one's self of the patency of the tubes, it is only necessary to pass a probe through them.

Another deviation from the ordinary programme is the employment of Mr. Lister's latest *carbolicized*, *chromicized*, and *sulphuricized* catgut.* This gut can be kept dry in the pocket-case, like an ordinary ligature, and needs only to be immersed in the carbolic solution, 1 to 20, for a quarter of an hour prior to an operation. It is stronger than the old catgut, does not slip in tying, as does that kept in oil, and it does not so quickly dissolve or soften in the tissues. From personal observation I can state that it will remain *in situ* from eight to twenty-two days. Two simplifications are so far made. A third is the use of Bruns's|| formula in making the gauze. One can keep on hand, in private practice, a quart or so of this solution, and when it is wanted, the gauze, or whatever absorbing material is employed, can be wetted with it

* "Centralblatt f. Chirurgie," July 22, 1882.

† In laparotomy, kelotomy, colotomy, and in operations on the joints, the spray is always used.

‡ In Halle and Vienna, much irrigation and little spray are used; in Berlin and Kiel, much spray and much irrigation; in Munich, much spray and little irrigation; in Paris, spray and irrigation; in London, spray and irrigation.

§ The formula ("Lancet," March 18, 1882, p. 440) is as follows: Steep the catgut in a one-per-cent. solution of chromic acid twelve hours, then in sulphurous acid (Br. P.) twelve hours, securing the ends to prevent untwisting. Sulphurous acid of only half the strength has lately proved to be better, keeping the gut in it but three hours.

|| Bruns gives the following, by which a very soft, well-impregnated gauze is easily made: Resin, 400 grammes; carbolic acid, 100 grammes; castor-oil, 80 grammes; alcohol, 2 litres.

and immediately placed on the wound, or it can be kept for some time by being enveloped, *without any drying*, in a rubber cloth.* The other familiar details of the Lister treatment are still resorted to, viz., the "protective," the drainage tube of red or black rubber, the carbolized silk for sutures (not always previously waxed, but simply immersed in the stronger carbolic solution), and the Mackintosh. A retrograde step, so far as simplification is concerned, made to avoid the renewal of drainage tubes, which is usually done on the fourth to the sixth day, is the substitution of decalcified chicken-bone tubes, as suggested by Neuber for the ordinary rubber ones; with these, in a case otherwise progressing satisfactorily, the dressing is not renewed until soiled, or the parts healed. In using iodoform, the wound is irrigated frequently with a 1-to-20 solution of carbolic acid before the powder is lightly dusted or blown on by an insufflator, but no spray is used. All instruments and sponges are, however, protected by the customary carbolic solutions. The wound is then closed by metallic or carbolized silk sutures, drainage tubes of either rubber or bone are introduced, and a small pad or cushion of iodoformized gauze, or other absorbent substance, is then placed next the wound, and over this a larger mass of absorbent material, without any Mackintosh or other impermeable material over it, is applied, and secured by a lightly compressing bandage. Now, this omission of the outer impermeable layer may strike a devoted adherent of carbolic acid as a mistake, but the slightly volatile nature of iodoform permits the use of the undiluted antiseptic directly in contact with the wound, which is, it is said, thus protected very strongly from the secretions that may be tainted at the surface of the dressing. It is, moreover, found that less risk of poisonous action takes place if no Mackintosh or other impermeable substance is employed, and also if much pressure of the retaining bandages be not resorted to.

Of the materials utilized to soak up the discharges from the wound, there are three that are in common use besides the ordinary carbolized gauze. The first is the iodoformized gauze, which is prepared either by simply dusting a given quantity on several thicknesses of gauze, or, preferably, by the costly method of impregnating the gauze, previously washed, with 50 parts iodoform, 250 parts ether, and 750 parts alcohol; this gives a 10-per-cent. gauze. Bruns uses a solution of 1 part iodoform, 4 parts of resin, and 20 parts of alcohol. The gauze is wetted with this solution, and subsequently from 30 to 50 per cent. of iodoform is dusted on the sticky gauze, to which it adheres. Lately a new wound dressing has been introduced from the celebrated clinic of Kiel by Esmarch and Neuber, which possesses absorbability to a remarkable degree. It is peat- or turf-mold, very friable, light, and spongy. This, impregnated with 2½ per cent. of iodoform, is packed lightly in a small gauze bag, which has been previously disinfected with a

carbolic-acid solution; over this a larger bag, filled with plain turf, but saturated with a 1-to-20 solution of carbolic acid, is placed and secured with a bandage, considerably more pressure being resorted to than when gauze is used. Bags of sawdust are also used, impregnated with iodoform or corrosive sublimate and carbolic acid. Such dressings, with the decalcified bone drains,* often permit an amputation wound to be completely healed without any change. When such a prolongation of the dressing is intended, the outer bandage is stiffened by water-glass. Although sand, cinders, spun glass, and other substances have been suggested, the direction of trials in the New York Hospital has been toward perfecting the readily obtained and cheap sawdust dressing, and so far it has answered well. But nothing yet, it is true, has been found to surpass the effectiveness of the peat dressing, and, although it may in the future be obtained here, yet that employed now has to be procured by importation, and is hence expensive.

In the employment of corrosive sublimate as an antiseptic, a spray of one part to one thousand of water (about 8 grs. to the pint) is used, or a solution of a similar strength is irrigated over the wound, and at first gauze bags of turf or sawdust, impregnated with a like solution and dried, were used, but recently microscopic examinations have showed that they were of insufficient strength, and hence the absorbing dressings have been immersed in the stronger solutions which the larger experience of Kümmel has shown to be most effective—viz., 40 grs. of corrosive sublimate to the pint of alcohol, to which 3 jss. of glycerin is added. The sponges and compresses are kept in one-tenth-of-one-per-cent. solution, i. e., 8 grs. to the pint of water. The silk sutures are prepared by soaking for two hours in a one-per-cent. solution, i. e., 76 grs. to the pint, and subsequently kept in soak in the weak solution (one-tenth of one per cent.). The sublimated catgut is very strong and supple, and is made by placing it in the one-per-cent. solution (alcoholic) for twelve hours, and then in one-quarter-of-one-per-cent. (20 grs.—Oj) solution, to which is added 3 j of glycerin. Under such dressings, within the past ten days, an amputation at the hip joint has passed satisfactorily toward complete recovery.

Additional advantages of the sublimate dressing are its freedom from odor, its slight effect upon the hands, much less than from carbolic acid, and its cheapness and ease of preparation. For the disinfection of instruments, however, the carbolic-acid solution has still to be used, as the prolonged mercurial immersion is apt to dull cutting edges. With these three antiseptics all wounds under my charge are now treated, preference being given to carbolic acid. Next in order is the corrosive sublimate, iodoform being reserved for small wounds or injuries, such as crushed fingers, stabs, etc., or wounds involving the orifices of the body.

The statement that the antiseptic treatment is nothing but cleanliness, notwithstanding the remarkable cases of Tait, is not borne out by the experience of the majority

* This gauze is stronger than that of Lister, but it loses the carbolic acid more rapidly. This observation ("N. Y. Med. Jour.," Jan., 1880) has been confirmed by Kopff, who found that, on the second day after each kind was prepared, the gauze of Bruns contained 5.62 per cent. of acid, while Lister's only retained 2.61 per cent. In the ordinary gauze sold at the shops only one half of one per cent. was found.

* Experiments are now being carried out to determine if temporary drains can not be made of compounds of gelatin, and also of the chromicized carotid and iliac arteries of the sheep.

of the leading surgeons abroad. Volkmann reiterates his remark that no suppuration will take place if septic infection is prevented, and Esmarch and Nussbaum pronounce a surgeon criminal in neglecting antiseptic measures.

The tendency in the striving after new methods of securing this end, and in simplifying the more complicated dressings, is to neglect the thorough and complete first disinfection of a wound. It is better to err on the side of too much care than to assume that the antiseptic used has so much potency that no care at all need be taken. Since the satisfactory working of iodoform, for instance, I have seen surgeons ignore the care of the hands, sponges, and instruments—drying the wounds with towels after washing the same with carbolic solutions, etc. Whatever may be the theory, if an antiseptic is used it should be applied from the beginning of a wound, and kept applied until the wound has either healed or been placed beyond the reach of danger, by full granulation.

ANTISEPTIC SURGERY.

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If the question were asked me, whether I believed in antiseptic surgery or not, I should answer both *yes* and *no*.

Yes, if by antiseptic surgery is implied the thorough cleansing and disinfection of the hands of the surgeon and his assistants, together with his instruments and sponges, when about to perform an operation or dress a wound.

Yes, if by the term is implied the removal from the vicinity of an open wound or sore of all materials which are liable to infect it, such as decomposed serum, blood-pus, or particles of dead tissue; the removal, at the earliest possible moment, not only from the patient's person, but also from his room, of all soiled bandages, poultices, or other dressings, and the thorough cleansing of the injured part immediately thereafter with water impregnated with some one of the many so-called germicides or antiseptics, of which carbolic acid is perhaps as good as any, on account of its well-known property of preventing and arresting fermentation and putrefaction, on account of its cheapness, and the facility of obtaining it almost everywhere.

Yes, if the term embodies the purifying of the air of the patient's apartment, as far as possible, of such elements as are supposed to develop septicæmia, pyæmia, or erysipelas, whether in the form of living microscopical organisms, according to the theories of Pasteur, or in the form of minute particles of septic matter thrown off from the skin, from the lungs, or from the surface of the wound itself.

Yes, if it means the timely evacuation of all pent-up fluids, whether pus or other inflammatory products, and the making of suitable provision for their discharge as fast as formed, and before decomposition has had time to occur, by the use of counter-openings, position of the part, and the proper employment of drainage tubes.

Yes, if it means, in a word, perfect cleanliness not only of the wound, but of everything which comes in contact

with it, including fingers, instruments, sponges, dressings; including the patient's clothes and his bed linen, and including, last but not least, as perfect disinfection of the air of the apartment as can be secured, first, by thorough ventilation, and, secondly, by keeping the air more or less charged with carbolic acid or some other reliable antiseptic.

No, if it means that all wounds must necessarily do badly; that septicæmia, pyæmia, and erysipelas must be the rule and not the exception, without recourse to all of the endless details of Lister's method.

No, if it implies that the science and art of surgery have reached that state of perfection which enables their votaries not only to predict with absolute certainty the results of a given operation, but even to guarantee a successful termination.

No, if it would force upon us the doctrine that all wounds, whether of an incised, a lacerated, or a contused nature, do best when hermetically sealed under seven or eight layers of antiseptic gauze, with one or two of caoutchouc or oil silk coated with varnish interspersed.

No, if it would compel us to discard in all cases the open treatment of Humphrey and the water dressings of Sir William Fergusson as relics of a barbarous age, to be condemned, shunned, and avoided by all decent society, and especially by all surgeons who make the slightest pretensions to scientific attainment.

No, if it would have us believe that the statistical records bearing upon this question have always been fairly, honestly, or impartially made; or that when we are regaled with an array of twenty or more cases of amputation of cancerous breasts, for example, in the experience of one man, all done with strict attention to the details of Lister's method, and all resulting in union of the wound by the first intention throughout, there is not some part of the history of these or other cases in the experience of the same individual which, for reasons best known to himself, has not been told.

No, if it would have us believe that the better results which are now obtained in the treatment of surgical injuries generally, over those of even a few years ago, are attributable exclusively to the minutiae of Lister's method; that no credit is due to the general recognition on the part of surgeons of the necessity for free drainage, the improved state of hospital hygiene, the importance of abundant air-supply, the avoidance of overcrowding, etc.

With regard to carbolic acid considered merely in the light of a dressing calculated to promote the cicatrization of wounds, and independently of its antiseptic properties, I believe that it acts as a stimulant to the parts to which it may be applied; that, like many other allied substances, it protects a sore from the air, hardens and contracts its surface, thereby lessening its secretion, and so favors those processes of nature whereby alone perfect repair can take place. But that its virtues in this respect are specially greater than those of alcohol, creasote, and many of the terebinthates, or that they are at all comparable with those of Peruvian balsam, for example, I have always had serious doubts.

The danger of poisoning by carbolic acid in the treat-

ment of open wounds, especially where considerable quantities are used, as in the syringing out of the cavity of a large abscess, are not so trifling, nor are cases of this kind so rare, as many of its warmer advocates would have us believe. For which reason, as also on account of its well-known irritating qualities, I do not think it is a proper substance to introduce into the peritoneal or pleural cavities in the form of vapor, as commonly used during operations, or in the form of a watery solution for washing out these cavities, except in a very high state of dilution.

Like other novelties in medicine and surgery which present themselves from time to time, carbolic acid has been the popular craze for the last fifteen years; it has been used externally or internally, in some form or other, for almost every ill that flesh is heir to.

That it has been the means, either directly or indirectly, of saving many lives, chiefly through the teachings of Professor Lister and his followers, no one who has been at all observant can deny; that it has killed a considerable number of people is equally certain; that it will not cure everything, and that it will not always prevent blood poisoning where the constitution of the patient is depraved and the blood vitiated, is a proposition too self-evident to require an argument for its demonstration.

That the majority of simple wounds occurring in a healthy subject, and treated under favorable local conditions, will heal equally well without it, is perhaps not so easy to prove, yet is generally acknowledged by a large number of careful, conscientious surgeons.

In a word, carbolic acid, considered as a panacea, has had its day; like bromide of potassium, like chloral hydrate, and many other new drugs, after having turned the heads of more than half of the medical world for a few brief years, it has, in this country at least, like them, come to occupy a definite place in the minds of the majority of physicians, or has come to be valued by them for just about what it is really worth, neither more nor less.

ANTISEPTICS IN EVERY-DAY PRACTICE.

By WILLIAM T. BULL, M. D.,

SURGEON TO ST. LUKE'S AND THE CHAMBERS STREET HOSPITALS.

WHILE the antiseptic treatment of wounds, either by Lister's dressing or some of its substitutes or modifications, is now carried out in most of our hospitals, it does not seem to be so generally adopted by practitioners as is desirable. It is admitted to be indispensable for all important operations and wounds, and in wards where many patients are aggregated, but is thought unnecessary, or of less value, in the minor wounds which occur in every-day practice. Or, if its advantages are not denied, it is thought to be too complicated, and to be too tedious to warrant its adoption.

Now, it is a fact that these minor wounds may be the starting-points of the most serious inflammations, and it is hence most important so to treat them as to prevent such inflammations. This can be most surely accomplished by carrying out strict antiseptic measures; and it is fortunately

the case that treatment by these measures has been much simplified in the past five years, so that no one can reasonably refrain from practicing it on the score of complexity.

Before mentioning in detail the class of cases to which I refer, let me point out the ways in which the original Lister dressing may be modified and made to answer all purposes for small wounds. In place of the expensive carbolized gauze, one may use the iodoform gauze* (made by rubbing the crystals into the meshes of well-washed cheese-cloth), or compresses of lint or gauze wet in two-and-a-half-per-cent. solution of carbolic acid. Carbolized catgut may be replaced by silk which has been boiled for an hour in five-per-cent. solution of carbolic acid, and kept in that solution. This will serve both for ligatures and sutures, but is not so sure to prove unirritating as catgut. The "protective" may be dispensed with, and the spray is not needed, since one can rely on irrigation with a five-per-cent. solution. But the utmost care should be taken to cleanse the parts about the wound, the hands of the surgeon, and the instruments, using for this purpose the five-per-cent. solution of carbolic acid.

Among the cases that fall frequently under the exclusive care of the general practitioner, and in which surgeons are not consulted, are scalp wounds, wounds of the hand, and small wounds in the vicinity of the larger joints, or overlying the pleural or peritoneal cavity. Even the most trifling of these wounds may have serious consequences. From scalp wounds erysipelas is a frequent and pyæmia an occasional result, while finger and hand wounds are frequently attended with prolonged suppuration in the sheaths of the tendons and the cellular tissue of the forearm; and synovitis, pleurisy, and peritonitis often follow superficial wounds. It is needless to dwell on the importance of these wounds. It is sufficient to say that their ill consequences may be avoided by preventing sepsis during their healing.

In all scalp wounds the head should be thoroughly washed with the five-per-cent. solution, and, in all but the smallest, the hair cut off about the wound. After stopping bleeding with the ligature, or, better, by the application of forcipressure forceps for a few minutes, the wound itself should be irrigated with the same solution. Small incised wounds of the scalp alone (without gaping) require no sutures; only a pad of iodoform lint on either side, and a third larger pad to cover and extend beyond them, held in place by a snug bandage. Larger wounds, with detachment of the scalp, or exposing the bone, may be sutured, but must be carefully drained with horse-hair (previously cleansed with ether and five-per-cent. carbolic-acid solution) at the ends of the wound, and through a counter-opening at the most dependent point, and covered with iodoform gauze (or compresses of lint wet in two-and-a-half-per-cent. solution), overlapped by gutta-percha tissue. Finally, wounds with much contusion, or laceration, or loss of substance—in general, those in which healing by granulation is the best that can be hoped for—will do best if stuffed with iodoform gauze, or the lint wet in two-and-a-half-per-cent. solution, and covered with absorbent cotton and gutta-percha tissue. The iodoform dressing should be renewed when discharge appears

* Seabury & Johnson, who manufacture a superior carbolized gauze, promise to furnish soon an equally satisfactory iodoform gauze

on its surface or at its edge; the compresses of two-and-half-per-cent. solution twice or three times in twenty-four hours. (A Lister dressing will need changing only after intervals of several days.) If decomposition should occur, the wound must be irrigated with five-per-cent. solution. But, if it remain sweet, it must not be disturbed (washing, etc.), except to renew the dressing.

Wounds of the fingers and hand require most careful cleansing, both of the wound and the parts adjacent, with five-per-cent. solution, since they are mostly complicated with foreign matters, such as dirt, machine-oil, powder, glass, etc. For small incised wounds, neither drains nor sutures are necessary. Careful approximation of the edges by compresses with strips of iodoform gauze (applied like adhesive plaster), covered by cotton and rubber, will suffice to secure first intention. Deeper incised wounds should have a horse-hair or rubber drain, and cut ends of tendons be sutured with carbolized silk cut short. All lacerated and contused wounds, including compound fractures and dislocations with detachment of the skin, should be left to granulate, and no parts removed by operation which are not actually dead. (I am satisfied, from the experience of many cases at the Chambers Street Hospital, that this is the best course to follow. I have often been disappointed in the effort to unite and drain this class of wounds, with a careful Lister dressing too, and had cellulitis follow. On the other hand, the most serious lacerations have, when left open, granulated finely in from five to ten days, without the least local or constitutional reaction, and with moderate and sweet suppuration.) After the irrigation, all recesses of the wound, especially those beneath detached skin and fascia, should be lightly stuffed with iodoform gauze, and the cotton and gutta-percha outside dressing applied to the entire hand and wrist with a splint. In place of the iodoform gauze, the compresses of two-and-a-half-per-cent. solution of carbolic acid may be used; but this is not so sure to preserve asepsis, and will need to be renewed every day, if covered with gutta-percha, or kept constantly wet with the same solution. After the wound granulates, useless parts should be amputated, and cicatrization promoted by skin grafting and strapping with adhesive plaster. The most rapid growth of the cicatrix I have found to follow the boracic-acid dressing. The surface and edges are protected with gutta-percha tissue, oil-silk, or (best of all) "protective" wet in five-per-cent. solution of carbolic acid. Over this, and projecting an inch or more beyond, comes a compress of lint wet in a saturated solution of boracic acid, and then an elastic bandage, which must be very evenly and smoothly applied. This will require renewal only every third or fourth day. It is more suited to ulcers of the arm and leg, however, where, without exaggeration, I have seen the cicatricial edge advance fully an inch from all sides under one dressing.

In the third class of cases that I have referred to—that of small wounds overlying the greater joints, or the thoracic or abdominal cavity—the greatest care is needed to prevent sepsis. After thorough washing, the discharge should be given free vent through the largest drain the wound will permit (a counter-opening is often advisable), and iodoform gauze, or the carbolized (two-and-a-half-per-cent.) com-

presses, applied as above described. If one were in doubt whether the cavity was opened or not, it would be best to apply the five-per-cent. solution on a sponge, or (better) to spread a thin film of iodoform on the raw surface. At all events, the wound had better not be tightly sutured; and, on the first appearance of inflammatory reaction, it should be opened, irrigated, stuffed, and left to granulate under a dressing. In cases of slight punctured wounds, such as are made by sharp hooks, or pocket-knives, it might be safe to dispense with drainage, especially if the wound had been but a short time exposed to the air, and there was no reason to fear the presence of foreign matters; but, in general, I should feel safer from septic influences with a freer wound thoroughly carbolized, or iodoformized, and drained, than with a small one left to Nature's sealing process, that of the coagulation of the blood in it. Of course, absolute rest should be enjoined. The following case illustrates the sad result of neglecting this class of wounds: A laborer was brought to the Chambers Street Hospital suffering from suppurative synovitis of one knee joint. A week before he was stabbed over the knee with a pocket-knife, and walked to a doctor's office. A piece of adhesive plaster was applied to the cut; he was told that it amounted to nothing, but recommended to keep quiet. The joint began to swell, but he delayed seeking advice till high fever came on. On admission to the hospital the joint was full of pus, he had pneumonia, pericarditis developed a day or two later, and the autopsy, ten days after the injury, revealed pyæmia.

A word of caution as to the infection of wounds by the practitioner himself may be *apropos*. We all know that it is possible to carry the germs of puerperal septicæmia from one woman to another; and it is equally possible to carry germs from a septic wound to a healthy one, and to set up unhealthy action in the latter. It is advisable never to go direct from an erysipelatous patient to one with a healthy wound, and one should never pass from the dressing of one wound to another without elaborate cleansing of the hands with five-per-cent. solution. The following is a good instance of infection through the surgeon, which came under my notice recently: A dispensary surgeon dressed a hand with severe cellulitis, and a half hour later, without washing his hands, sewed up a slight wound in the cheek of a healthy child, and applied a cold-water dressing. Twenty-four hours later the child was brought back with vomiting, high fever, and erysipelas of the face. Careful inquiry failed to find any source of infection in his surroundings.

Such dressings as I have described can not be reasonably called complicated. The materials are easily procured, they are easily applied, and without the sacrifice of much time. In the end, from the infrequency of their renewal, and the more rapid course of the healing process, much time is saved to both physician and patient. It is in the power of the physician, by the use of these antiseptic measures, to secure a prompt and inoffensive healing of such wounds as I have mentioned, and to avoid all secondary inflammations. I do not mean to assert that he will be successful in every case. Neglect on the part of the patient, disarrangement of the dressing, or its failure to prevent sepsis, may cause an occasional bad result, but these

are conditions beyond his control. But my own experience tells me that if he takes every precaution he will secure the best result in the great majority of cases.

2 EAST THIRTY-THIRD STREET.

CASE OF OSTEOMA OF THE CONJUNCTIVA.

By E. G. LORING, M. D., NEW YORK.

The patient was a healthy and well-developed child of eight months. Just after its birth, a small fold of "skin," as the mother said, was noticed in the upper and outer angle of the eye. This fold began to be more and more apparent until the child was five months old, when it attained its present position and size, which have not changed during the last three months. The eye has never been at all red except to a trifling degree, and then only at times over the fleshy protuberance. Nor has there been any pain connected with it. The protuberance presented the appearance of a small oval cystic growth, midway between the outer angle of the eye and the edge of the cornea, and was in about the horizontal meridian. It was not until the forceps touched the mass after opening into the fold that its bony or cretaceous character was suspected. It was firmly attached to the conjunctiva above and at the sides, though it did not appear to be attached at all to the globe. The operation healed kindly, there only remaining, at the end of the fourth week, when the child was last seen, a slight injection along the wound.

The other eye was perfectly normal. The child has a slight nævoid-looking spot on each upper lid.

The weight of the mass was 45 milligrammes; length, 8 mm.; width, 5.5 mm.; height, 2.5 mm. It was oval in shape, with the long diameter in the horizontal meridian of the eye. It was convex above and concave below where it rested upon the sclera.

The specimen was given to Dr. W. H. Welch, and his report is as follows: The bony growth is enveloped in a thin fibrous capsule. The growth is found to consist of true bone. Thin slices removed with the scalpel show perfectly formed lacunæ and canaliculi. No large medullary spaces are found, but there are Haversian canals, around which the bone corpuscles are arranged in lamellar systems. The addition of acid to a fragment of the specimen causes an evolution of abundant bubbles of gas, leaving behind an organic residue.

Dr. Welch reports that only two other cases which had been reported are known to him. These are found in Graefe and Saemisch's "Handbuch d. gesamt. Augenheilkunde," Bd. iv, Th. 2, p. 151, 1876. He finds no reference to any cases since then in Virchow and Hirsch's "Jahresbericht."

DR. HUNTER MCGUIRE writes to the editor of the "Virginia Medical Monthly" concerning the title of "Emeritus Professor of Surgery in the Medical College of Virginia," erroneously appended to his name in the "International Encyclopædia of Surgery." He expresses his surprise and mortification at the mistake, stating that he resigned the chair of surgery in the college several years ago, and has since had no connection with the institution.

Correspondence.

LETTER FROM BOSTON.

Boston, November 13, 1882.

AMONG those matters likely to prove interesting in correspondence from another city, the subject of medical charities stands prominent. Of the older institutions of Boston, however, the Massachusetts General Hospital and the City Hospital, there is little to say that is not known to most of your readers. The former has recently opened its beautiful Convalescent Home at Belmont, a charming town a few miles from Boston, and everything is in good working order. A new building has been erected for the Training School for Nurses, and will soon be dedicated. The Out-patient building, which has long been overcrowded, is to have an additional story, so as to better accommodate the throat and skin departments; and, when these changes are finished, we may expect others. In fact, it is an open secret that another new ward will be begun in the spring, upon the remaining available space in the hospital grounds. Soon the trustees will begin the buildings for the lunatic department of the hospital, now called the McLean Asylum, which is at Somerville, situated upon a hill overlooking Boston. The base of this hill is surrounded by railroads; in fact, one railroad runs directly across the grounds. I say soon, for it is only a question of time, and that in the near future, when the land can be sold for enough to build a model asylum on the corporation's beautiful grounds near the Convalescent Home.

The Carney Hospital, carried on under the direction of the Catholic Sisters, is situated on the historic "Dorchester Heights," in South Boston, having a more beautiful and extended view than any like institution in Boston, overlooking as it does the harbor and the surrounding country. It is the only general hospital in our neighborhood where patients having private rooms can select their physicians from those who are not on the hospital staff. It is also the only one where ovariectomy is done under the hospital roof, Dr. John Homans having performed fifty of this class of operations there.

The Adams Nervine Asylum is situated in one of the outlying wards, near where we hope to have a park, when our city fathers can agree to accept the liberal offer from the Overseers of Harvard University, they offering the Bussey Arboretum to the use of the public if the city will build, and keep in repair, walks and drive-ways, and furnish police service, the care of the grounds being paid for by the college. Founded through the generosity of the man whose name it bears, the Nervine Asylum has, during the short time it has been open, demonstrated that there was a wide field of usefulness ready for it, and that it is doing its work well. As one of the trustees of the Adams, and also of the McLean, said to me, "I can not help thinking that by our work at the Nervine we are preventing people from going to Somerville, taking them in time to benefit them." Dr. Frank Page, formerly of the McLean Asylum, is the resident physician.

Some twelve years ago the Children's Hospital was organized upon a small scale. Now its sphere of usefulness has largely outgrown its present quarters, and it will soon be moved into the spacious new building on Huntington Avenue. The exterior is plain, without any attempt at ornamentation; but everything that sanitary engineering and plumbing can do has been done, and, though the location, on sanitary grounds, is not the very best, a brilliant future may be predicted for it.

One of the oldest and best-conducted of our charities, but one little heard of outside of the city, is the Boston Dispensary. For years before out-patient departments were thought of, the afflicted poor were treated in a quiet way at its building in Ben-

nett Street, and its district physicians went over the whole city, not only giving advice and furnishing medicines, but in many cases providing food and raiment out of their own private means. In the directors' room in the Dispensary, over the fire-place, is a carving representing the biblical story of the Good Samaritan; in many houses the district physician has put that scene in practice. So quietly has the institution done its work that many charitable people have never heard of it. Recently it has made an appeal for money in order to erect a new building. The plans are drawn and have been accepted (not, however, till they had been examined and approved by the medical board), and soon work will be begun, and we shall have a model building, which will accommodate the staff and the greatly increased number of patients.

Another new building of interest to your readers is the new Harvard Medical School. Situated on Boylston Street, near a number of handsome churches and other public buildings, it is an ornament to the city, and one that all those interested in medical education may be proud of. It is the intention of the Faculty to have everything in readiness for the new year, and fitly celebrate the centennial year of the Medical School.

Dr. Oliver Wendell Holmes has resigned his professorship in the Medical School, as most of your readers are doubtless aware. For over a quarter of a century he was Professor of Anatomy and Physiology; but since these subjects were separated, upon the introduction of the "New System" of medical education, he has continued to show that the study of anatomy can be made anything but a dry subject. It will be hard to fill his place satisfactorily to all. Fortunately the funds in the hands of the Overseers for the Chair of Anatomy will be large enough to attract a capable anatomist, for, by combining the "Parkman" and "Wyman" professorships, about \$8,000 a year will be at their disposal. Of course, this would render occasional lectures at Cambridge necessary; but a man with that salary would be expected to devote his whole time to the subject. What the University loses by Professor Holmes's resignation the literary world at large will gain.

It is a common saying with us that any deserving charity can get all the money it asks for. One such institution has just received a handsome sum without asking for it. The Boston Lying-in Hospital has had a bequest of \$50,000, which will enable it to continue its good work without annually appealing for aid.

This hospital was an old corporation which apparently had outlived its usefulness; and for twenty years the only sign of life it gave was the annual meeting of the directors, who at such times voted various sums to certain charities. The principal in the mean time kept increasing, and in all probability would have continued to increase, without doing any good, to this present day, but for the energy of one of the younger men in the profession, who awoke the trustees to their duty, and had the new hospital opened. Now, though only in its tenth year under the new management, it is doing as much work as its present quarters will permit.

The Massachusetts Medical Benevolent Society held its twenty-fifth anniversary a short time ago, and celebrated it by a dinner at Young's Hotel. The event was a very enjoyable one. The object of the society is to give financial aid to widows and orphans of medical men. The funds amount to \$20,000, and each beneficiary receives \$80 a year.

These are the greater charities. To speak of the various special hospitals and day nurseries would be too much in a letter like this; hereafter I may refer to them in various connections.

F.

Book Notices.

The Treatment of Diseases by the Hypodermatic Method. By ROBERTS BARTHOLOW, M. D., LL. D., Professor of Materia Medica and General Therapeutics in the Jefferson Medical College of Philadelphia. Fourth edition, revised and enlarged. Philadelphia: J. B. Lippincott & Co., 1882. Pp. 365. [Price, \$2.]

THIS edition of Professor Bartholow's well-known work is considerably larger than the third, and the author informs us that it has been in great part rewritten, all well-proved advances in our knowledge of the subject having been incorporated in it. As it stands, it is a most useful and instructive monograph, on a theme of the utmost practical importance.

Nitro-Glycerin as a Remedy for Angina Pectoris. By WILLIAM MURRELL, M. D., M. R. C. P. Lecturer on Materia Medica and Therapeutics at the Westminster Hospital, etc. Detroit: George S. Davis, 1882. Pp. 78. [Price, \$1.25.]

THIS is an exhaustive monograph on nitro-glycerin in medicine; its preparation, administration, and effects. Special reference is made to its use in the treatment of *angina pectoris*. The subject is very thoroughly discussed in all its aspects. Nitro-glycerin being a new remedy, and so little having been written about it except in journals, the author's little work is an important addition to literature.

Aids to Rational Therapeutics. By J. MILNER FOTHERGILL, M. D., M. R. C. P. New York: G. P. Putnam's Sons, 1882. Pp. 121. [Students' Aids Series.—Price, 25c.]

THIS little work is written in exactly the same style as the author's larger Hand-book of Therapeutics. It needs no other description than the statement that it is a miniature of the larger book, differing from it merely as to the fullness with which the subjects are treated of.

BOOKS AND PAMPHLETS RECEIVED.

Anatomical Technology, as applied to the Domestic Cat: an Introduction to Human, Veterinary, and Comparative Anatomy. With Illustrations. By Burt G. Wilder, B. S., M. D., Professor of Physiology, Comparative Anatomy, and Zoölogy in Cornell University, etc., and Simon H. Gage, B. S., Assistant Professor of Physiology and Lecturer on Microscopical Technology in Cornell University, etc. New York and Chicago: A. S. Barnes & Co., 1882. Pp. xxvi-575. [Price, \$4.50.]

The Diseases of the Liver, with and without Jaundice; with the Special Application of Physiological Chemistry to their Diagnosis and Treatment. By George Harley, M. D., F. R. S., F. R. C. P., Physician to University College Hospital, London, etc. Illustrated by colored plates and wood engravings. Philadelphia: P. Blakiston, Son & Co., 1883. Pp. 751. [Price, cloth, \$5; leather, \$6.]

The Etiology of Consumption. A paper read before the Ohio State Medical Society, June 14, 1882. By D. N. Kinsman, M. D., Columbus, Ohio.

Conjoint Session of North Carolina Board of Health and Medical Society of North Carolina, held in Concord, May 10, 1882.

Three Cases of Stricture of the Urethra Cured by Electrolysis after all other Methods of Treatment had Failed. By John Butler, M. D. [Reprint from the "New York Medical Times."] London Water Supply. Report, etc. No. xxi.

Walsh's Physicians' Combined Call-Book and Tablet, from 18— to 18—. Seventh edition. Washington: Ralph Walsh, M. D. [Price, \$1.50.]

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MEDICAL TRAINING FOR NON-MEDICAL WORK.

FOR a man to forsake the practice of the law and devote himself to statecraft is of such common occurrence that a knowledge of the law has almost come to be looked upon as necessary to a creditable career on the part of a public official or a legislator. From the chancel to a professorship in some institution for the instruction of the young is a step to which we are little less accustomed. But let a physician find, after years spent in fitting himself for practice, that medicine is not to his liking—there seems to be no other vocation into which, more than into others, he is naturally and obviously led. It is true, artistic anatomy is commonly supposed to be among the acquirements with which a well-educated physician should be credited, and a knowledge and a love of this branch account, from the popular point of view, for the success which in many instances physicians have met with in painting and sculpture. In particular, we have lately had this idea held up as an explanation of the excellence of some of Mr. Seymour Haden's etchings, Mr. Haden being a surgeon, as many of our readers are doubtless aware. Now, apart from the fact that such men's best work is quite as often shown in other branches of the pictorial art as in their delineations of the human figure, if not more so, we have very decided doubts as to whether more than the most trifling aid is derived by them from such knowledge of human anatomy as they acquired in the medical curriculum. Moreover, painting and sculpture, although often taken up as a diversion, do not seem to be at the bottom of more defections from the ranks of medical practitioners than many another calling that might be named. They, therefore, form no exception to the general fact that there is no obvious way out from a career in the practice of medicine.

The field of investigation in the natural sciences has proved attractive to many who have renounced medical practice. A noteworthy example will be brought home to the minds of many of our readers by the recent untimely decease of Professor Henry Draper, whom medicine may well be proud of having added to the number of workers in pure science. The student of medicine is too apt to look upon the natural sciences only as subsidiary to medicine, but now and then the means proves more to his taste than the end, and he lingers in the by-way, forgetful of the high road he started for. In no wise should such a course be thought retrogressive, under the idea that we have alluded to, that the natural sciences are chiefly of importance as tributaries to medicine. Those sciences touch human progress and human happiness at many other points than those immediately connected with the matters of health and disease. Not for a moment would we gainsay the justness

with which medicine assumes to be in a certain sense the sum of the sciences, for to a great extent that assumption is well founded. It is a practical fact, however, that one may forsake the practice of medicine, and devote his life to the study of one or more of the physical sciences, without in the least lowering the high station which he originally proposed to himself to attain. Even were this not the case, it would by all means be desirable for a man to give up practical medicine, in favor of a more congenial pursuit, when he finds that success in medicine, far from being assured by the best attainable mastery of it as a science, demands also the ability to manage men, a capacity in which he may find himself sadly wanting.

Turning to literature, we shall find that none the more does that pursuit afford a refuge for those who wish to cut loose from the practice of medicine, for a fondness for literary work is prone to show itself, if ever, earlier in a man's life than the time at which he usually enters upon the study of medicine; therefore it may divert many from ever engaging in medical study, but can scarcely draw off many who have already gone through with the curriculum. This we say in spite of Professor Oliver Wendell Holmes's recent renunciation of his position as a teacher of anatomy, for the purpose of devoting his whole time to literature. His life-long prominence in the little knot of American writers of excellence would vitiate any contradiction that the instance might be taken as opposing to our statement, even if he had ever been a practitioner of medicine, and certainly that occupation has never formed any considerable part of his career.

Turn in whatever direction we may, then, we see no calling into which that of medicine naturally runs. And yet many find it the wiser part to change their pursuit. We are inclined to think that this course will be exemplified more and more as the profession gets to be more and more over-crowded. No doubt the step would be taken oftener were it not for a certain repugnance to what has been called "pulling up and coming down"—a feeling that is natural enough, but by no means warranted by the facts. To change one's pursuit argues no sense of unworthiness so long as the change is not a descent, but rather gives proof of a creditable self-appreciation. Given a well-founded recognition of one's comparative unfitness for the practice of medicine, the renunciation of that pursuit is praiseworthy and for the common good. Let it not be thought that we would counsel a discontented or unsuccessful practitioner to throw up the game on a mere whim, or for any but the most cogent reasons; success in medicine often comes late in life, and we would advise no one to take such a step without having first convinced himself that he is positively unfitted for a medical career, and that he has a real aptitude for some other calling equally honorable.

THE NEW PHARMACOPOEIA.

I.

THE sixth decennial edition of the Pharmacopœia of the United States, recently published, deserves more attention than is ordinarily accorded to works of its class. On that account

we think it proper to devote more space to its consideration than the limits of our department of book notices admit of. A pharmacopœia is not a book from which a practitioner of medicine can derive much, if any, guidance in his daily work; it appeals rather to the pharmacist. Nevertheless, the physician can scarcely afford to remain in ignorance of its contents, or, if he wishes to keep pace with the movements of the profession as a body, wait for a new edition of one of the dispensaries. The latter, to be sure, would in due time give him the gist of the pharmacopœia, but the work of revising so large a work as a dispensatory necessarily takes up so much time that, depending on it alone, one is likely to find himself at fault in his knowledge of the official preparations for a vexatious length of time. Hence we advise our readers to familiarize themselves with the new pharmacopœia, although we are well aware that it will not at all obviate the necessity of studying the more elaborate works that are sure to be founded on it.

This last edition of the Pharmacopœia shows abundant evidence that the Committee of Revision have performed their task in no perfunctory manner, but with an industrious and conscientious devotion to the end in view—to make the book a closer approach to perfection than any of its predecessors. We think it must be conceded that they have met with a fair degree of success in this direction, although, as will appear further on, we can not look upon their production as all that is to be desired.

We are apt to found our first impressions of such a work upon the list of new articles admitted into the official category, as compared with the list of substances formerly recognized but now dismissed. In the former class we find a number of new preparations termed *abstracts*. These are powders consisting essentially of sugar of milk impregnated with a solution (generally alcoholic) of the active constituents of a vegetable drug, the finished product being of twice the strength of the crude drug. The form is a convenient one, and in many instances the elegance of the preparation is all that could be asked for. A few of them, however, such as those of aconite, of hyoscyamus, and of nux vomica, are apt to "gum up," on account of the unfitness of the constituents of those drugs for a preparation of this sort. The other additional preparations, except the triturations, lack the charm of novelty, and we therefore pass on to the further consideration of the articles newly admitted. Of these there are thirty of vegetable origin, sixty inorganic drugs, and sixteen classed as "miscellaneous substances." The most noteworthy, as it seems to us, are: boric acid, oleic acid, salicylic acid, nitrite of amyl, iodized starch, hydrochlorate of apomorphine, chloride of gold and sodium, caffeine, sulphurated lime, monobromated camphor, chinoidin, chrysarobin, sulphate of cinchonidine, cinchonine, codeine, elaterin, eucalyptus, frangula, grindelia, guarana, hamamelis, sulphate of hyoscyamine, malt, oleate of mercury, oleate of veratrine, oil of tar, petrolatum (vaseline), picrotoxin, hydrochlorate of pilocarpine, pilocarpus, pulsatilla, sulphate of quinidine, quinine (together with its bisulphate, hydrobromate, and hydrochlorate), salicin, green soap,

benzoate of sodium, salicylate of sodium, sulphocarbolate of sodium, staphisagria, sumbul, thuja, thymol, triticum, diachylon ointment, ustilago, viburnum (prunifolium), viola tricolor, and the bromide, iodide, and phosphide of zinc. Most of the others, it seems to us, might just as well have been omitted, unless, indeed, the official list is to include every drug and every preparation that an intelligent practitioner is at all likely to prescribe; and we are by no means sure that this would not be the best plan on which to proceed.

Of the articles dismissed, we regret only *erigeron canadense*, glycerite of tannic acid, flaxseed meal, castoreum, and compound tincture of iodine—and this rather mildly. Hereafter we shall refer to some of the other features of the work.

THE POLYCLINIC.

We have already acquainted our readers with the general plan of the Post-Graduate Medical School lately established in New York. Almost simultaneously with that undertaking another has been started, termed the New York Polyclinic. The scope of the two schools varies in some matters of detail, undergraduates being admitted to the Polyclinic, as we are informed, and no didactic lectures being given; but they agree in the negative characteristic that they have not the power of conferring a degree that carries with it a license to practice, and hence can not degenerate into diploma-mills, and in the most praiseworthy work of supplementing the formal courses given at the great schools. Allowing for the diversity that we have pointed out, doubtless there is still similarity enough between the two institutions to give rise to a certain amount of rivalry. It does not seem to us that this is to be regretted in the interest of either; there is room for both, and a wholesome emulation can not but prove a safeguard against any tendency to sluggishness—a tendency, by the way, that would seem to be amply precluded by the excellent character of the corps of instructors with which each of the two has entered upon its work.

We understand that the Polyclinic already shows signs that active clinical work is going on within its walls, and that thus early in its career it is meeting with an encouraging amount of patronage. This it certainly deserves in view of the apparent excellence of its plan of organization and the constitution of its faculty. There is a board of sixteen directors, six of whom are distinguished members of the profession, including two who are professors in colleges that have the power of conferring the degree of doctor of medicine. As regards the faculty, Dr. James R. Leaming, the president, is intrusted with the department of diseases of the chest; to Dr. E. Darwin Hudson is assigned the chair of general medicine; Dr. John H. Ripley takes the department of diseases of children, with Dr. George B. Fowler as adjunct; diseases of the mind and nervous system, with electrotherapeutics, fall to Dr. Landon Carter Gray; laryngology, rhinology, and otology are divided between Dr. Louis Elsberg and Dr. Richard C. Brandeis; dermatology is shared by Dr. Andrew R. Robinson and Dr. Edward B. Bronson; Dr. John A. Wyeth and Dr. A. G. Gerster teach general and genito-

urinary surgery; gynecology and obstetrics are in the hands of Dr. Paul F. Mundé and Dr. W. Gill Wylie; Dr. Emil Gruening and Dr. David Webster have charge of ophthalmology; and Dr. V. P. Gibney takes the orthopædic branch of surgery, with Dr. Charles F. Stillman as adjunct. Besides these well-known gentlemen, there is a corps of twenty-three assistants, also made up of excellent material.

It is undoubtedly the case that practitioners from various parts of the country come to New York in yearly increasing numbers for the purposes of recalling their half-forgotten lore in a pleasant and expeditious way, of studying disease more systematically than the opportunities afforded by private practice readily admit of, and of sharpening their practical acumen by closer contact with others engaged in the same pursuit than can fall to their lot in sparsely peopled districts. To such men the older colleges have attractions of their own, and it is scarcely to be supposed that these attractions will be at all dimmed by the younger institutions; but, quite apart from the pabulum afforded by the former, there can be little question but that the Post-Graduate School and the Polyclinic will offer supplementary advantages that will be availed of by great numbers. Nor is it necessarily to be expected that there will be any hard and fast choice between the two; the men of whom we speak come with a settled purpose to make the most of all opportunities they can find, and they will not be slow to recognize the wisdom of attending both institutions. There is, indeed, no incongruity in such a course, and we heartily trust that both schools may draw largely from the same body of pupils.

THE NEW INFECTIOUS DISEASES ORDINANCE OF BALTIMORE.

IN a supplementary sheet published with the December number of the "Medical Chronicle," of Baltimore, we find the full text of a new ordinance now in force in that city in regard to the duties of physicians and others in the matter of such infectious diseases as small-pox, cholera, yellow fever, malignant diphtheria, and scarlet fever. By this ordinance the Commissioner of Health is vested with powers that would seem to be quite adequate to any possible emergency affecting the health of the city—powers so plenary, indeed, as to carry with them the gravest responsibility, and to call for the utmost discretion in the selection of that functionary. Concerning many of its sections, to be sure, it may be said of the ordinance that it requires the concurrence of the Mayor in the Commissioner's acts in order to make them valid, but it goes without saying that a Commissioner at all worthy of the place must feel that on his own shoulders rests the real responsibility. In view of this state of things, it is to be hoped that the office can not fall to a non-medical man.

Physicians are required to report all cases of the diseases mentioned within twenty-four hours after their first visit, and a like requirement is made of all keepers of hotels or boarding-houses, and indeed of householders in general, as well as of officers and consignees of vessels in port. Reports of deaths

from these diseases, too, must be made within twenty-four hours, with a statement of "the specific name and type" of the disease. It occurs to us in this connection that the term "malignant," as applied to cases of diphtheria, opens a loop-hole for evasion, since a difference of opinion may be maintained as to the precise applicability of the term in individual instances. It seems to us that, if diphtheria is to be reported at all, the requirement should extend to all cases.

There is a stringent section forbidding the landing or near approach to any wharf or building of any infected skins, fish, rags, bones, hides, or like articles, or their storage within the city, without a written permit from the Commissioner; also the sale, exchange, or exposure of infected straw, bedding, clothing, or other articles, until they have been adequately cleansed or disinfected. A prohibition to the same purpose attaches to the exposure of individuals to infection by allowing them to inspect houses where infectious diseases have occurred, with a view to buying or renting; and a particularly explicit section forbids the use of any public vehicle for the transportation of any person affected with any of the diseases mentioned; or of the body of any person dead of such disease—unless it can be shown to the Commissioner's satisfaction that such vehicle is used for those purposes only—on pain of the seizure and detention of the vehicle for the purpose of its disinfection.

The Commissioner is also given power to order the evacuation of any over-crowded or filthy habitation, visited with an infectious disease, whenever in his opinion such a course is demanded for the protection of its occupants or their neighbors, maintenance being afforded by the city to those who may thus be taken from their dwellings. For like reasons he may close streets and practically quarantine whole districts, setting sentinels to guard his muniments, and displaying a yellow flag in front of the infected premises.

Vaccination may be made compulsory in the case of any individual whenever the Commissioner considers it necessary, provided five years have elapsed since such person was last vaccinated. The penalty for violating any of these requirements is a fine ranging from one dollar to two hundred for each offence, but it is specified that the fine for refusing to be vaccinated shall not exceed ten dollars. The vaccination of all infants before attaining the age of one year is made compulsory upon parents and guardians.

We do not understand that this ordinance is temporary in its operation, and designed only to meet an emergency; it seems to be meant for permanent application. If this is the case, it must be called somewhat more sweeping than most communities are willing to submit to.

THE VISITING LISTS.

THE physicians' pocket-books known by the name of visiting lists, or some term more or less equivalent, have come into very general use, and their leading characteristics are so well known that we need not enter upon any description of them. It is probable that most physicians who use them are accustomed to one or another, and are likely to continue with that particular one. In truth, there is very little choice between

them, as they all contain very much the same sort of printed matter, together with blank pages arranged for a simple form of book-keeping, memoranda of professional engagements, addresses, etc. Those that have reached us for the year 1883 are: 1. Lindsay & Blakiston's "Physician's Visiting List," now published by Messrs. P. Blakiston, Son & Co., of Philadelphia. This seems to be the oldest of them all, being now in the thirty-second year of its publication. 2. "The Physician's Hand-Book," prepared by Dr. William Elmer and Dr. Albert D. Elmer, and published by Mr. W. A. Townsend, of New York. This is rather a thick book for the pocket, owing mainly to the extended list of remedial agents contained in it. 3. "The Medical Record Visiting List, or Physicians' Diary," published by Messrs. William Wood & Co., of New York. This strikes us as more tastefully got up than the others, and as commendable for the brevity of its printed matter. 4. "Walsh's Physicians' Combined Call-Book and Tablet," published by Dr. Ralph Walsh, of Washington, who also publishes the "Physicians' Handy Ledger," concerning which we have before taken occasion to speak in terms of commendation. The "Call-Book and Tablet" is a fitting companion to the larger book, and both seem to be very handily arranged.

Proceedings of Societies.

NEW YORK MEDICAL AND SURGICAL SOCIETY.

A STATED meeting was held October 14, 1882, Dr. T. GAILLARD THOMAS, President, in the chair.

PARALYSIS OF THE ARM FOLLOWING SLIGHT HANDLING OF THE MEDIAN NERVE.—About ten days ago Dr. ALFRED C. POST removed a tumor from the axilla of a gentleman some thirty-five years of age, who had first noticed the growth five or six weeks before. When Dr. Post saw it, it was between the size of a hen's egg and that of a goose's egg. It was not attended with pain, but was growing somewhat rapidly. On cutting through its investments, nearly to its substance, it appeared to be very closely adherent to the median nerve, so that it seemed likely that it was a neuroma, and that it might be necessary to excise the nerve; but, on cutting through the remaining investment, the tumor was enucleated without injury to the nerve. The nerve had been handled during the operation, but not rudely. To Dr. Post's surprise, he found, the next day, that there was paralysis of both motion and sensation of the forearm and hand, not absolutely complete, but nearly so. A year or two before, the patient had had a swelling about the shoulder, which was regarded as rheumatic; it continued a number of days, and at that time he had paralysis of the same parts. The nerve, therefore, had been weakened by previous pressure or disease. The patient was now gradually recovering from the paralysis.

NECROSIS OF THE LOWER JAW DUE TO A FRAGMENT OF TOOTH.—Dr. POST also narrated the following case: A sequestrum of the lower jaw, which he presented, was removed six or eight weeks ago from a young man who, about two years before, applied to a dentist to have a bicuspid tooth extracted. The tooth was broken, and the principal part of it was left behind; no immediate irritation followed, but, after the lapse of a year and a half, inflammatory swelling occurred over the bone, and portions of dead bone were discharged, together with the remnant of the tooth. For a long interval thereafter no fragments of bone were discharged. When the patient applied to Dr. POST there was a sinus leading to roughened bone. He cut down and removed the sequestrum shown. The special inter-

est of the case was with reference to etiology. The necrosis came on at a somewhat remote period after the breaking of the tooth, a part of which was left behind; then irritation increased until a considerable portion of the jaw had to be removed.

Dr. HENRY B. SANDS had treated a case somewhat resembling Dr. POST's a few months before. There was a point connected with the case which puzzled him then, and he was yet unable to explain it. A man entered Roosevelt Hospital on account of necrosis of the lower jaw. The inflammation which had led to necrosis followed the extraction of a tooth. On examining the patient, it was not discovered that anything remarkable had occurred during the performance of the operation, but he stated that soon afterward a severe inflammation followed, and when he presented himself for admission the bone was found dead and separated. The peculiarity of the case was that the necrosis was very extensive. It involved nearly one half of the jaw, extending down to within half an inch of the symphysis, and nearly to the level of the articular extremity. The necrosed portion was in many fragments—perhaps eight or ten—which were readily removed with the forceps. Dr. SANDS was unable to explain why there should have been so many pieces of bone. There could not have been that amount of comminution at the time of the extraction of the tooth, he imagined, nor could fissures have taken place in so many directions. The man made a good recovery, and new bone was formed.

THE TREATMENT OF RUPTURE OF LARGE BLOOD-VESSELS CONNECTED WITH A SUBCUTANEOUS LESION.—Dr. SANDS would like to elicit the experience of the surgical members of the society in regard to the treatment of ruptured arteries and veins of large size with subcutaneous lesions. A lad, fifteen years of age, came under his notice on the preceding Wednesday evening, having received an injury at five o'clock on the morning of the same day from having the left thigh caught between two sail-boats. The boats came into collision with considerable force. The boy's leg was hanging over the side of one of the boats, and the thigh was caught between them, so that the force was applied laterally at about the lower third of the femur. Upon the outer and inner side of the limb there was well-marked ecchymosis, covering an area of several square inches. The boy said that within five minutes of the time of the injury the limb reached a large size, and at the time of his admission it was found very greatly swollen, the swelling extending up to the middle of the thigh, and involving the popliteal space. The swollen parts were exceedingly tense; the leg was cold, and, although not devoid of circulation, the passage of blood through the veins and capillaries was very sluggish. The pain had subsided when he entered the hospital, and, indeed, the leg was almost insensitive. He had suffered somewhat from shock. No pulsation could be discovered in the affected limb, at or below the seat of the injury. Dr. SANDS had no doubt that it was a case of rupture of the artery or vein, or both; it was well known that, when an artery was ruptured completely, pulsation was generally absent. As to a murmur, some authorities stated that it was present, and some that it was not. Where the rupture was partial the signs of traumatic aneurism—that is to say, pulsation and murmur—were much more commonly observed. He proposed to cut down upon and secure the bleeding vessels, or, failing in that, to amputate the limb. But the boy's relatives were not present, and nothing could be done but to wait. On Thursday the boy's condition was improved. He had rallied from shock, the temperature of the limb had risen somewhat, so that it was no longer cold, pain had nearly disappeared, and the circulation was more active, the capillary circulation being quite so. The venous circulation still seemed to be slow. On Friday he was worse again; slight

delirium had occurred during the previous night, the temperature had risen to 103° F., the limb was cold, and gangrene was evidently threatened. Still there was capillary circulation in all parts of the limb. To-day, Saturday, his condition was not much changed. Perhaps there was a little more swelling, with a little extension of the coldness up the leg, but the circulation was still going on, and, of course, there was no line of demarcation. Dr. Sands proposed to amputate the limb to-morrow afternoon, if the consent of the relations could be obtained. The point which he wished to raise was, the proper treatment of such an injury in which there was rupture of a large vessel, as of the popliteal artery. Two methods of treatment had been proposed: one, to cut down and find the bleeding vessel and secure it; the other, to amputate the limb. So far as experience was concerned, the latter was the proper operation. It had been found under these circumstances exceedingly difficult to discover the bleeding vessel in the infiltrated tissues; it was found very often that both the artery and vein were ruptured, and cases in which that operation had been done, he believed, had proved fatal as a rule. One such case occurred to him in Bellevue Hospital in 1867. A lad of twelve years entered the hospital with an injury caused by a bank of earth falling on him. A diagnosis of rupture of the popliteal artery was made. Swelling took place very rapidly, the limb became cold, and after a while lost its vitality. In his case the operation of opening the popliteal space and tying the wounded vessel was proposed, but was not accepted. All operative interference was declined until twelve days after the injury, when, gangrene being evident, the parents consented to an amputation, which was performed at the middle of the thigh, and the boy made a recovery. An examination of the vessels in that case showed that the artery and vein were both completely ruptured at the level of the knee joint. From the rupture of a vein, of course, recovery might take place; but it was difficult, on account of the absence of pulsation and murmur, to make an exact diagnosis. There were some cases in which a large vessel was ruptured, and recovery took place spontaneously. He remembered the case of a man at Bellevue Hospital who had a fracture or a dislocation of the humerus into the axilla, he did not remember which. Within an hour after the injury the limb became enormously swollen in consequence of extravasation. A consultation was held, and amputation was proposed, but the patient declined it. Afterward the blood was absorbed, and the man made a very good recovery. A few years ago, while attempting to reduce a dislocation in a very old lady, he unfortunately ruptured a large vessel in the axilla. The swelling was very sudden and very great, and pulsation in the radial artery stopped. He was unable to say just what vessel was ruptured. The swelling extended down to the hand, and finally blood made its way down on the back of the pelvis. This patient also recovered. In a case like the present one, however, in which a large artery, as the femoral or the popliteal, was ruptured, he thought that the proper course to pursue would be to ligate the artery at once, if possible, if this alone were wounded; otherwise, to amputate the limb.

Dr. Post thought the course to be adopted in such a case would depend very much upon the severity of the injury. If it were inflicted by direct violence, producing very great contusion and laceration, the chances of saving the limb by securing the ruptured artery would be small. If the artery were ruptured by indirect violence, so that no very serious injury was done to the other tissues, he would suppose the prospect of giving relief by cutting down and securing the artery would be very fair. In the first instance the injury to the parts, without rupture of a vessel, would often lead to gangrene. Lately a patient was brought to him who had received a stab in the wrist from a pen-

knife. The wound was sewed up at the Chambers Street Hospital, but afterward the patient was brought to Dr. Post by a physician, with the statement that repeated hæmorrhages had occurred, that the limb was paralyzed, and that no pulsation could be felt in the arteries. The whole history of the case led Dr. Post to believe that the ulnar artery had been wounded. He applied an Esmarch bandage, cut down and ligated the ulnar artery. The patient left the hospital, and Dr. Post supposed he did well. He had not seen any cases of rupture of large arteries, as of the femoral or popliteal, in which the diagnosis was perfectly clear.

Dr. THOMAS M. MARKOE did not recall any cases exactly similar to the one mentioned by Dr. Sands. A patient once came under his care who had rupture of the anterior tibial artery in connection with a fracture of the bone. The evidence of traumatic aneurism was very marked, the swelling was great, but the case terminated favorably.

Dr. Post remarked that he had had two cases of compound fracture in which there was wound of the main artery, in one case the femoral, in the other the brachial. He tied the artery, and the patients recovered.

The PRESIDENT asked whether aspiration would decide whether arterial or venous hæmorrhage had occurred.

Dr. Post thought that, unless aspiration were performed very soon after the hæmorrhage had occurred, there would be no apparent difference between arterial and venous blood.

OBLITERATING INFLAMMATION OF THE CEREBRAL ARTERIES.—The case was narrated by Dr. FRANCIS DELAFIELD. The patient was a man about fifty years of age, a sailor. He had been perfectly able to perform his duties until the 15th of September. Then, while sitting on a bench on deck, engaged in some work, he suddenly fell over to one side. He did not lose consciousness or become paralyzed. He was picked up, and after a little while was so much better that he could climb the ropes. Two days later, however, he noticed that he could not control his gait as well as before; he walked too fast, and ran against things. He continued in this condition, otherwise feeling pretty well, until the 24th, when he entered the hospital. Now there was also a little dragging of the left leg, and a little loss of power in it. Sensation was unimpaired. The motor power was good in the right leg and in both arms. He could speak fairly. He desired to go to bed. The next day his speech was a little affected; he articulated slowly and with difficulty. Motor paralysis remained confined to the left leg. He did not wish to get up or to do anything. On the 27th the speech was so affected that one could hardly understand what he attempted to say. The left arm was now almost paralyzed, and the left side of the face was a little paralyzed. By the first of October the patient had become almost completely unconscious, but he was not comatose. There seemed to be pretty complete paralysis of the whole of the left side of the body, and some involuntary contraction of the muscles of this side. He became more profoundly unconscious, and passed his urine and fæces in bed. He remained in this condition until death, which took place on the 10th of October. There was no history of syphilis.

At the autopsy all the cerebral arteries were found to present the lesions of chronic obliterating arteritis in a very marked degree. The caliber of the arteries was very much narrowed; the right middle cerebral artery was almost obliterated. The white matter of the right cerebral hemisphere, just outside of the corpus striatum and the optic thalamus, was softened. The right corpus striatum was also softer than the left. The rest of the arteries of the body showed the ordinary lesions of chronic endarteritis in a moderate degree. There was but very little change in the kidneys. Those were the only changes which had occurred. The case was rather an unusually clear

example of the symptoms due simply to obliterating endarteritis of the cerebral arteries. In reply to a question by the President, Dr. Delafield said that syphilis might undoubtedly cause obliterating endarteritis, but he believed it was no longer questioned that the latter might occur independent of syphilis. This patient was a respectable man, who stoutly denied syphilis, and no lesions of the disease could be found.

Dr. A. BRAYTON BALL had seen a similar case.

SALICYLIC ACID IN THE TREATMENT OF CYSTITIS.—Dr. WILLIAM H. DRAPER related a case of cystitis in which he had used salicylic acid to advantage. [It will be given in a future number of the journal.]

Reports on the Progress of Medicine.

QUARTERLY REPORT ON OPHTHALMOLOGY AND OTOTOLOGY.

No. XII.

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OPHTHALMOLOGY.

THE SECRETION OF THE HUMAN LACHRYMAL GLAND.—Magaard ("Arch. f. path. Anat. u. Physiol. u. f. klin. Med.," lxxxix, 2, 1882) has been investigating the secretion of the lachrymal gland in man. His observations were made upon a man who had marked ectropium of both lids and of the external canthus of the right eye, and prolapse of the retrotarsal fold above and below, so that the mouths of the lachrymal ducts were visible. In the left eye the condition was even worse. As preliminary to his observations, the eyes were carefully cleansed with lukewarm water, until the parts gave a neutral reaction. Then the contents of the lachrymal gland were squeezed out, and, when tested, always gave an alkaline reaction. The results of his observations may be condensed as follows: 1. The lachrymal secretion is very variable in quantity, from various psychical and other causes. 2. By careful calculation, it was estimated that both lachrymal glands secrete in twenty-four hours 6.4 grammes of fluid. 3. Atropine diminishes the secretion in time. 4. Eserine annuls the action of atropine, and in a short time increases the secretion. 5. Irritation of the sympathetic nerve in the neck by the faradaic current *seems* to accelerate the secretion. 6. The secretion coagulates by heat, and contains albumin and the chlorides, but no phosphates.

DIPHTHERITIC OPHTHALMIA AND ITS TREATMENT.—Barette ("Arch. d'Ophtalmologie," March-April, 1882) calls attention to two facts not hitherto mentioned—loss of the eyelashes, and paralysis of the lid. In the patients examined by him the ciliary bulbs were so altered by the disease that most of the cilia were lost, and were not reproduced. The only rational treatment consists in exciting in the mucous membrane a state of inflammatory congestion favorable to the elimination of neoplastic products and to the production of healthy pus, or, in other words, a purulent conjunctivitis; and then treating this purulent inflammation by the ordinary means in use. He removes false membranes, employs antiseptic lotions, and applies constantly *hot* fomentations. As an antiseptic lotion he employs either Labarraque's solution, or a solution of carbolic acid of five per cent.

TREATMENT OF SERPIGINOUS ULCER OF THE CORNEA.—Verdès ("Arch. d'Ophtal.," March-April, 1882) presents a somewhat novel view of the origin of this form of ulcer. He supposes an

obstruction in the course of the tears, or a simple diminution in the force of the current, which becomes insufficient to carry along with it or to retard septic substances which may be engaged in the inferior orifice of the nasal canal, either spontaneously or by the patient blowing his nose; and these septic substances, *leptothrix buccalis* or *aspergillus*, will penetrate into the lachrymal canals, and, being in an excellent state for cultivation, multiply, and only await the proper moment for manifesting their necrotic action. He considers that the serpiginous form of ulceration is due entirely to the infection by micro-organisms which thus find a nidus of cultivation in the altered conditions of the lachrymal canals. He says that in the majority of cases the simple lachrymation precedes the corneal complications. These serpiginous germs may infect slight corneal desquamations, which were possibly produced by the obstruction to the course of the tears. He recommends the injection of intact lachrymal puncta with a four-per-cent. solution of boracic acid as the best prophylaxis against simple ulcers as well as the serpiginous. When such an ulcer appears he scrapes roughly its entire surface with a narrow cataract knife, and endeavors to produce an actual resection of the pultaceous margin, especially on the side where the destructive action seems to be going on. As the necrotic elements are detached, an assistant brushes over the cornea with a solution of salicylic acid and borate of sodium, each one gramme to ten grammes of water. Then the lachrymal punctum is opened, the point of an Anel's syringe introduced, and a series of injections made with a four-per-cent. solution of boracic acid. The conjunctival cul-de-sac is then carefully cleansed with carbolized cotton, and the solution of salicylic acid and borate of sodium again spread over the cornea. The eye is then covered with carbolized cotton. This dressing should be done twice a day. Bowman's operation may be done upon the lachrymal passages if deemed advisable.

AMYLOID DEGENERATION OF THE EYELID.—Raehlmann ("Arch. f. Augenheilk.," xi, 4) states that the first beginnings of the degeneration appear generally in the deeper layers of the conjunctiva, and here he has found the most marked degree of degeneration. It seems to extend in both directions, toward the epithelium and toward the tarsus. Still, all layers and tissues of the lid may be involved in the degeneration. In most of the cases examined, he found the conjunctival epithelium unchanged, but in a number of cases he observed that the cells had the peculiar hyaline glistening appearance. In several cases he noticed the first signs of hyaline degeneration and amyloid formation in the walls of the blood-vessels. The median coat is here generally more involved than the adventitia. The subconjunctival tissue is frequently the main seat of the disease, and in these cases sclerosis of the connective-tissue fibers plays an important part. In many cases of amyloid degeneration this seems to precede the peculiar degeneration of the fibrous connective tissue. The swelling of the tissues of the lid is generally moderate. The swollen parts feel hard, and are brittle. The broken surface has a granular appearance, and the granulations resemble frog-spawn or boiled sago.

This tissue is colored mahogany-brown by a solution of iodine. The color produced by the solution of iodine and sulphuric acid is in most of these cases not pure blue, but rather a dirty brownish-green or greenish-violet. The lids in these cases are not very hard, but are elastic and resisting. The cut surface does not show a granular consistence, but rather a dense, brawny consistence.

The fibers of the orbicularis are generally involved early. The first signs of the hyaline and amyloid degeneration may frequently be seen in circumscribed spots in the continuity of the muscular fibers, and the fibers here have a nodular appearance, as if they were varicose, and lose their striated appearance.

MODIFICATION OF THE OPERATION OF TRANSPLANTING THE CILIARY BORDER OF THE LID.—Panas ("Arch. d'Ophtal.," May-June, 1882) recommends the following modification of Anagnostakis's operation for the relief of entropion. He dissects up completely the ciliary flap from above downward to the free border, where it is only held by the mucous membrane. He then dissects up and pushes upward the fibers of the orbicular muscle by means of a blunt hook. He then fixes the ciliary flap to the suspensory ligament of the lid by means of needles armed with a suture. In cases of inveterate trichiasis with involution of the tarsus he adds to this operation a tarsotomy, in which the transverse section is made, of course, before the application of the sutures.

GLIOMA OF THE RETINA.—Poncet ("Arch. d'Ophtal.," May-June, 1882) records some interesting facts in connection with a case of retinal glioma. He thinks it singular that, in a tumor which returns as rapidly as glioma, we so seldom meet with cells with a segmented nucleus or a double nucleolus, and, therefore, he thinks that the rapid growth of glioma can not be attributed to this mode of evolution. In the case seen by Poncet the sclera was healthy, as was also the cornea, but Fontana's space was obliterated and the iris atrophied. The walls of the blood-vessels were the seat of the formation of giant cells. The neoplasm was in the vicinity of the ciliary processes, and in the midst of the hæmorrhagic exudation, in the posterior segment of the eyeball, were masses of gliomatous cells, irregularly scattered through the vitreous. The ciliary muscle was atrophied, but not gliomatous. In the choroid the internal limitans was intact, the capillary zone was but slightly affected, and the glioma was mainly developed in the deep layers of the choroid, nearest the sclera. In the optic nerve the elements primarily the seat of the degeneration were the cells of the neuroglia, and the nerve fibers had become granular by the pressure exercised by the neoplasm. From the masses of cells in the immediate vicinity of the disc, and the condition of the optic nerve, Poncet regarded it as certain that the disease began in the papilla. In the blood-vessels the first tissue affected was the endothelium, and here the proliferation started. This he regards as a proof of the epithelial nature of glioma. He also thinks that glioma may be propagated as well by the grafting of one cell, or even of the granulations of protoplasm, as by dichotomous division of the nucleus. He found that when the retina remained attached to the choroid, the march of the neoplasm was very rapid, but, when the retina was detached, the progress was less rapid, and the eyeball retained its shape longer. The detachment is a mechanical act; a formation of adhesions by epithelial desquamation, a more or less thick, fibrinous exudation in greater or less abundance, a gliomatous perforation in the choroid so situated as to retain the retina in place, would all hinder the detachment and favor the propagation of the neoplasm; but these are all entirely accidental. Whenever this tendency to detachment occurs, the disease is isolated in an exudation for a certain time before it involves the other membranes by grafting or cell migration. If enucleation is done at this period, a return of the disease is certainly postponed, and perhaps prevented.

DIVISION OF THE SPHINCTER IRIDIS WITH THE SPHINCTERECTOME.—Maklakoff ("Arch. d'Ophtal.," May-June, 1882) recommends the operation of sphincterectomy, and describes an instrument for its performance, which consists of a small hook, made of silver or flexible steel, and so small that it can be introduced through a very small incision in the cornea. The pupillary margin of the iris is seized and brought out through the corneal incision, and then excised, so that the circular pupil is transformed into an oval. He has had this hook adapted to Wecker's scissors, so that it may be introduced through a small corneal wound, the iris sphincter hooked and drawn out through

this wound, between the open blades of the scissors, which are then closed by the action of the thumb and forefinger, and the iris excised.

NEW RESEARCHES UPON THE SENSIBILITY OF THE RETINA.—Charpentier ("Arch. d'Ophtal.," May-June, 1882) draws the following conclusions from his investigations into the sensibility of the retina: 1. The minimum illumination necessary for the perception of small luminous surfaces is inversely proportional to their extent. 2. The minimum illumination necessary for the perception of large luminous surfaces is independent of their extent. 3. The limit of retinal surface beyond which the surface exerts no influence upon the luminous perception about corresponds to the dimensions of the fovea. 4. The same laws seem to be applicable to indirect vision. 5. We must distinguish between simple luminous sensibility and visual sensibility, or perception of distinct centers of luminous excitation. 6. Visual sensibility demands for its production more light than simple luminous sensibility. 7. Visual sensibility is not affected by obscuration of the eye. It is always produced by the same minimum of brightness in spite of the diversity of physiological conditions. 8. The perception of two luminous points is produced directly and without confusion when they are situated at a greater distance from each other than the breadth of the fovea. 9. The differentiation of two points illuminated by a pure color demands more light than the perception of this color, which itself demands more light than the simple sensation of light. 10. Within the limits mentioned, the differentiation of two points upon a black ground is independent of their brightness. 11. Within the same limits, the illumination necessary for the differentiation of two points upon a black ground is inversely proportional to their surface. 12. We may rely upon these laws for establishing the principle of a precise method of physiological photometry. 13. The method here indicated applies equally both to white and colored light. 14. The perception of colors is influenced by the extent of the colored surface; the smaller the surface, the greater the necessary illumination. 15. The relation which exists between the surface excited and the minimum illumination of the color is not simple, as for the luminous sensation. Sometimes the chromatic sensibility increases more rapidly than the surface, and sometimes more slowly. 16. I we take away from the quantity of light which has provoked the chromatic perception that which is necessary for the production of the primitive luminous sensation, we see that the remainder is independent of the colored surface. 17. The chromatic sensation is therefore once again differentiated from the simple luminous sensation. It is much easier produced for red than for blue, the only colors which he has been able to compare precisely.

ENCYSTED CAVERNOUS ANGIOMA OF THE ORBIT.—Eloni ("Arch. d'Ophtal.," May-June, 1882) reports an interesting case of encysted cavernous angioma of the orbit, occurring in a woman aged fifty-two, of three years' duration, coming on without traumatism, but connected, he thought, with nævi of the lid, which existed in childhood. There were marked tinnitus aurium, an audible bruit, and marked diminution of vision. A nævus also appeared in the lower lip, and another on the calf of the left leg. There was also marked exophthalmus in a forward direction, but no diplopia. No ophthalmoscopic change. Eloni removed the tumor by excising the external angle of the conjunctival cul-de-sac, dividing the external rectus, and dissecting out the growth, of the size of a walnut, by the aid of a finger and the handle of the instrument. It was found completely encysted. The result was good, though vision was only eccentric, and the cornea became anæsthetic over the entire supero-temporal quadrant. The eccentric vision, together with the narrowing of the vessels of the optic disc, and the gradual atrophy of the

papilla, induced Eloni to suppose that there had been a certain amount of hæmorrhage between the sheaths of the optic nerve. The tumor, on examination, proved to be an encysted cavernous angioma. From the constitution of the walls of the blood spaces, from the contents of the latter, and from the topographical situation of the cavities, Eloni thought that he had found cavernous spaces occupying the place of capillaries, some of which resembled arteries, and others veins. The existence of normal and atrophied adipose cells, the atrophy being produced by the compression exercised by the surrounding connective tissue, and the distension of the walls of the blood spaces, induces the belief that these cells are the last remains of adipose tissue back of the eyeball, and in the midst of which the angioma was developed. The enlargement of the cavities being caused by distension and consecutive atrophy of the limiting walls and partitions, Eloni thinks that these partitions, which theoretically offer a sufficient resistance to the tension of the blood, becoming relaxed and ruptured, the volume of the tumor ought to increase indefinitely, if a new force were not substituted for the one destroyed. This force, he thinks, is furnished by the incessant development of the elastic tissue of the envelope.

CHANGES IN THE FUNDUS OCULI CAUSED BY CERTAIN DISEASES OF THE LIVER.—Litten (*"Zeitschr. f. klin. Med.,"* v, 1) has been making some investigations into the changes produced in the fundus of the eye by certain diseases of the liver, with the following results: 1. In all the various diseases of the liver which are complicated with icterus, retinal hæmorrhages occur not infrequently, and these must be regarded as symptomatic of other widely extended hæmorrhagic processes occurring in many of the internal organs. These hæmorrhages are by no means always to be regarded as of evil omen, for they occur in a comparatively harmless form of catarrhal hepatic inflammation whenever the latter is complicated with icterus. With the latter they stand in close connection. 2. In one case of acute atrophy of the liver from phosphorus poisoning, besides fresh retinal hæmorrhages, Litten observed multiple white spots, which proved, on microscopic examination, to be fatty degeneration, which were mainly situated in the granule layer, and contained numerous granular bodies and tufts of tyrosin. The capillaries had also undergone fatty degeneration. 3. In two cases of atrophic cirrhosis of the liver, he observed pigmentary degeneration of the retina, which in one of the cases was developed long after the disease of the liver had existed, while in the other it preceded it by a year. In both cases there was marked concentric limitation of the field, with good central vision and general diminution of the visual power under diminished illumination. 4. Hemeralopia sometimes occurs during the existence of a hypertrophic or an atrophic cirrhosis of the liver, without any trace of a demonstrable organic retinal change. 5. By ligation of the optic nerve, as near as possible to the eyeball, it is possible to produce in the retina processes similar to those Berlin describes as produced by division of the optic nerve, and similar also to those seen in retinitis pigmentosa: atrophy of the cellular elements of the retina, absorption of the pigment of the epithelial layer, and wandering of the same into the innermost layers of the retina. On the other hand, a hyperplasia of the connective tissue, as observed in pigmentary degeneration of the human eye, was almost entirely wanting. 6. Immediately after puncture in a marked case of ascites, a neuro-retinitis with slight swelling of the papilla was developed, with exudation into its tissue and around the vessels. Litten thinks that this was caused by the rapid alteration of the conditions of hydrostatic pressure, in consequence of the rapid withdrawal of sixteen litres of fluid.

CEREBRAL DISTURBANCES OF VISION IN PARALYTICS.—Stenger's remarks (*"Arch. f. Psych.,"* xiii, 1) are based upon the careful examination of eight cases, with five autopsies. In one case the

intra-cranial inflammation had attacked especially the central organs of speech and sight. The patient with every attack lost the intellectual perception of all visual objects for a period of about ten days. Then the faculty of memory for most objects returned, but for a small number of objects was permanently lost. Finally, after many attacks, all optical intellectual images were lost, and the patient lost entirely and permanently the psychological perception of objects. In a second case, after a pronounced right hemiplegia, cerebral amaurosis and aphasia appeared, and after a duration of four weeks disappeared; after a second attack they again appeared, accompanied by destruction of the sense of feeling. A few days later the right eye became entirely blind (Munk's cortical amaurosis); subsequently a third paralytic attack was followed by complete loss of consciousness, and death. The autopsy showed extensive atrophy of the left frontal lobe, cloudiness and thickening of the pia most marked in the posterior convolutions, and general firm adhesions of the latter to the cortex. Right hemianopsia occurred whenever the cortex or medullary fibers leading to it from the occipital lobe were destroyed, and the defect in the visual field was greatest in the right eye. Left hemianopsia occurred with disease of the right occipital lobe. The hemianopsia is partial or total, according to the extent of the destruction.

THE PERIPHERAL AND CENTRAL ARRANGEMENT OF THE OPTIC-NERVE FIBERS.—Ganser's paper (*"Arch. f. Psych.,"* xiii, 2) is based upon a series of experiments carried on upon kittens. His method of experimentation consists in taking a kitten about three days old, enucleating an eye, and then introducing a sharp pair of forceps through the optic foramen and endeavoring to tear through the optic tract of the same side close to the median line. If this succeeds, the crossed bundles of fibers of both eyes, the uncrossed of the left, and the entire inferior commissure will be destroyed, and only the uncrossed bundle of fibers of the right eye will remain intact. These experiments he has repeated a number of times, and careful examination afterward convinced him that the animal only saw with the temporal half of each retina. An ophthalmoscopic examination showed white discoloration of the inner half of the optic disc of the one eye left. He concludes from his observations that in the cat the uncrossed optic-nerve fibers in the chiasm and nerve run in an isolated bundle along the external border of both nerve and chiasm, so that they slightly conceal the crossed bundle on its dorsal aspect. Between the two there exists only a very small zone of mixed fibers. The uncrossed bundle in the cat consequently forms a real fasciculus lateralis, as described by Hannover. In the retina the result is similar. The nerve fibers spread out exclusively in the temporal half, while in the nasal half a complete atrophy of all nervous parts, involving both nerve-fiber and ganglion-cell layer, results from these experiments.

DISEASE OF THE OPTIC DISC IN CONNECTION WITH TYPHOID FEVER.—Oglesby (*"Brain,"* v, 2) calls attention to some of the ocular complications of typhoid fever. These changes are in the optic disc, and he has never met them in any case of typhoid fever where the patient had passed through the disease without prominent cerebral meningitis. The disc is the seat of a sub-acute neuritis, in which the effusion is of so slight a character as to deceive any but the most practiced in the use of the ophthalmoscope. The visual defect is not noticed until long after the health of the patient is restored. The discs present an unusual appearance, having a peculiar tint of brownish-redness. The veins seem to carry too much blood. The contour of the disc is unaltered. As a rule, patients suffering from typhoid amblyopia have a decided appearance of facial cellular dropsy, and yet no albumin appears in the urine after repeated examinations. The disease of the optic disc grows progressively worse, and, though not, as a rule, ending in atrophy, does so not infre-

quently. It is much more frequent among child-bearing women than among men. Oglesby has never yet met with a case in which a history of meningitis could not be obtained. In those cases in which effusion into the disc has rapidly destroyed vision, the optic tracts have presented direct evidences of softening.

THE HISTOLOGY OF THE CORNEA.—Hoene ("Med. Jahrb.," 1882, Heft 2) has been investigating the changes undergone by the substantia propria of the cornea by age, and his observations, made upon animals, have convinced him that the linear appearance in the cornea is due neither to the presence of lamellæ of connective tissue nor to the presence of a cementing substance. The fine threads which, under a high-power objective, are seen both longitudinally and in cross-sections, arise from the so-called plates or lamellæ, and penetrate the basic substance in all directions, giving off branches as they go, which again penetrate neighboring lamellæ. It is Hoene's opinion that these little threads are nothing more than the thread-like processes of the corneal corpuscles. A proof of this view, he thinks, is given by the fact that both threads and lamellæ in the cornea of new-born rabbits and dogs are stained by prolonged contact with the chloride-of-gold staining fluid. Observations upon older animals have led him to the conclusion that the processes of the corneal corpuscles, in the course of time, become altered into elastic plates and threads. The successive diminution and disappearance of the cells seem to indicate that the corneal corpuscles are gradually changed into the substantia propria until they all finally disappear in advanced life.

TUBERCULOSIS OF THE EYE WITH CONSECUTIVE GLAUCOMA.—Falchi ("Ann. di Ottalmologia," xi, 2 and 3) reports a very interesting case of general tuberculosis of the eye, followed by secondary acute glaucoma, in a boy aged seven, of scrofulous family. The eye was enucleated, and a very careful microscopical examination made. From the clinical and anatomical examination of this case he draws the following conclusions: 1. Tubercles may be propagated in different parts of the eye and provoke an attack of glaucoma. 2. The cloudiness of the cornea in this particular case was due to the presence of œdema of the lymphatic spaces of the corneal parenchyma, especially in its posterior half, sometimes accompanied by disappearance of the connective-tissue elements, while the epithelium and anterior elastic lamina remained normal. 3. A fresh, young connective-tissue element with fibrinous coagula may be the medium of adhesion between the iris and the membrane of Descemet in acute glaucoma.

SPURIOUS NEUROMA OF THE OPTIC NERVE.—Hulke ("Roy. Lond. Ophth. Hosp. Rep.," x, 3) reports an interesting case of tumor of the optic nerve in a woman aged nineteen, which was at first supposed to be a neuroma. It was removed with the eyeball, and was firm, spheroidal, and about one third as large as the eyeball, from which it was separated by a portion of seemingly healthy optic nerve about half an inch long. The extremely slow growth of the tumor was a remarkable circumstance. Except for some thickening, the dural sheath passed unchanged over the mass, but the loosely arranged fibers of the intervaginal space were enormously increased in the neighborhood of the entrance of the nerve into its front part. The new growth appeared to be a sarcoma, taking its rise in the loose tissue of the intervaginal space, most probably from the nucleated cells found upon its fibers.

IVORY EXOSTOSIS OF THE ORBIT.—Tweedy ("Roy. Lond. Ophth. Hosp. Rep.," x, 3) reports a case of ivory exostosis of the orbital and cranial cavities in a man, aged twenty-five, in whom the orbital portion of the growth was removed by operation. The patient died, thirty-two days after the operation, in profound coma. At the autopsy, the greater part of the exostosis was found in the left anterior cranial fossa. It had originally

sprung from within the left frontal sinus, and had grown chiefly upward. The roof of the sinus was in part extended over the tumor, and in part absorbed by it. In the frontal sinus were a few semi-transparent polypoid growths. The bony growth reached one inch above the orbital plate of the frontal bone, and extended for that distance into the left anterior lobe of the brain. It measured two inches from before backward. It also sent a prolongation about half an inch long downward into the left side of the nasal cavity, and this portion was broken off the remainder of the tumor, apparently at the time of the operation. Backward the growth had forced its way into the inner end of the great sphenoidal fissure. There was general basilar meningitis, with a little lymph in the fissure of Sylvius and at the anterior part of the pons Varolii. The brain in immediate contact with the tumor was in a state of red softening, being semi-fluid, with some puro-lymph on its surface at the summit of the bony mass. The case teaches that it is impossible, by the orbital portion alone, to judge of the real size and extent of an exostosis springing from the frontal sinus; and, consequently, that other indications must be sought for in considering the feasibility of removing the tumor by operative interference.

TUMOR OF THE BRAIN WITH OPTIC NEURITIS.—Lawson's case ("Roy. Lond. Ophth. Hosp. Rep.," x, 3) of tumor of the brain with optic neuritis, ending in death, occurred in a man who had just had a severe epileptic convulsion. Within an hour the convulsions recurred, and with great violence. Each convulsion lasted a few minutes, and was followed by an interval of coma. These recurrences continued for seven hours, and then ceased, the patient sinking into deep coma, which lasted for three hours. He then became violently delirious, remained so for several hours, and then fell asleep. When he awoke he had regained consciousness. From this time he remained free from all symptoms save severe headache for a period of five months. Then various symptoms, all pointing to tumor of the brain, made their appearance, and he slowly grew worse, and died in about a year after the first attack. At the autopsy the anterior third of the right hemisphere was found, to a large extent, occupied by a tumor of somewhat ovoid shape, two and a half inches long, two inches wide, and weighing about four ounces. Where it reached the surface it involved the posterior two thirds of the first frontal convolution and a small part of the middle of the second frontal. Below, it encroached upon the anterior part of the right lateral ventricle. There was marked softening of the brain substance surrounding the tumor, especially below and to the outer side. The tumor was remarkably dense and firm, very sharply defined, and readily separated from the surrounding brain tissue, though firmly adherent to the dura mater above. Its surface was smooth, rounded, slightly lobulated, highly vascular, and covered by a ramified network of small vessels. On section it was of a somewhat dark, fleshy-red color, rather paler toward the center, highly vascular, homogeneous and not encapsulated, slightly granular in appearance, and very firm to the touch. The vessels and nerves at the base of the brain were perfectly healthy, with the exception of the left optic nerve, which appeared flattened.

SYMPATHETIC OPHTHALMITIS FOLLOWING EXTRACTION OF CATARACT.—Milles ("Roy. Lond. Ophth. Hosp. Rep.," x, 3) reports a number of cases of undoubted sympathetic inflammation following extraction of cataract. The operation performed was Graefe's modified peripheral extraction. In six cases the operation was uncomplicated. In two some soft lens matter was left behind. In one the iris was partially torn from its attachment. In one the cataract had to be removed by the scoop, with slight loss of vitreous. As regards the condition of the exciting eye after the operation, in two instances there was simply a small incarceration of iris in the corners of the corneal section.

In one a dense membrane and posterior synechiæ formed as a result of iritis; in two iris and capsule were adherent to the wound; in two more the pupil was drawn up and closed by membrane; in one suppurative iritis of a painless character resulted; and in three instances suppurative irido-cyclitis occurred. The interval between the extraction and the onset of sympathetic ophthalmitis was, as a rule, two to three months. The shortest period was six weeks, the longest fifteen months. Keratitis punctata was invariably observed in the sympathizing eye, usually at an early period. In the sympathizing eye the tension varied from time to time. Several of these patients retained excellent vision in the exciting eye. The severity of the sympathetic ophthalmitis bore no proportion to the damage done to the exciting eye.

EMBOLISM OF THE CENTRAL ARTERY OF THE RETINA.—Benson ("Roy. Lond. Ophth. Hosp. Rep.," x, 3) reports a case of embolism of the central artery of the retina, occurring in a healthy person in whom no cause could be discovered. There was a complication in the shape of a cilio-retinal vessel. The line of demarkation between the œdematous retina round the macula and the normal patch to its inner side was extraordinarily sharply defined. The fatty changes in the retina occurred, with great rapidity, in less than three days. The circulation was eventually completely re-established, and the vision was rapidly restored by the use of electricity. Subsequently well-marked small round or oval white patches appeared in the region of the yellow spot and in the extreme periphery.

IRIDOTOMY OPERATIONS.—Milles ("Roy. Lond. Ophth. Hosp. Rep.," x, 3) suggests a modification of the operation of iridotomy, which consists in making the corneal incision in a radial manner, the outer end being at the sclero-corneal margin; that is to say, it is at right angles to the ordinary incision in the circumference of the cornea. The resulting scar is, of course, far external to the axis of vision. The advantages of this modification are: 1. That the incision in the cornea can be much more limited, and proportionally gives more play to the scissors. 2. That the knife can be plunged directly through the iris in the direction previously decided. 3. That the scissors are introduced and remain in the same direction, and, consequently, that they completely fill up the corneal incision, and so prevent any escape of vitreous.

SIZE AND POSITION OF THE LENS IN GLAUCOMA.—Brailey ("Roy. Lond. Ophth. Hosp. Rep.," x, 3) reports the results of his investigations into the size and position of the lens in glaucoma. He thinks, from his measurements and observations, which he has here tabulated, that he is justified in concluding that in glaucoma an enlargement of the lens is an uncommon and unimportant occurrence, and that its average diameter in this disease, whether it be cataractous or clear, is even somewhat below the normal at the corresponding period of life. He regards the vitreous body as the immediate agent of the advance of the lens, for detachments of this body by means of accumulations of fluid in front of the ora serrata appear to be as rare in glaucoma as in other diseases. The accumulation of fluid, either within or behind the vitreous, must be due either to the separation of an abnormally large quantity from the blood-vessels surrounding it, without a proportionate increase of that escaping from it into the vitreous chamber, or to an insufficient drainage in the last-mentioned direction, the quantity passing from the blood-vessels remaining unaltered. If a mechanical obstruction checked the outflow here, we should expect to find an accumulation of fluid immediately behind it—that is to say, between it and the vitreous, just as we find the posterior chamber distended when the pupil is excluded. Brailey asks, What proof have we that such a mechanical obstruction ever exists? Physiological variations in the size of the lens are not sufficient to produce one, and,

moreover, the lens would require to be very considerably increased in diameter before it could by itself constitute an obstruction. For the surplus fluids of the vitreous chamber pass forward, not between the lens and the summits of the ciliary folds, for the two touch under normal circumstances, but along the channels between the folds. It is clear that any influence exercised by the lens would be insignificant in comparison with that produced by the swelling of the ciliary folds themselves. Observation has taught Brailey that, so far from there being any enlargement of the latter, their average size is greater in eyes with normal or subnormal tension than in glaucomatous eyes. It seems indisputable that their size is directly influenced by the intra-ocular pressure, and it is highly probable that one of their functions, especially of their anterior or most projecting part, is to adapt themselves to, and to some extent regulate, the varying conditions of intra-ocular pressure. Brailey fails to recognize in cases of primary glaucoma any obstruction to the normal flow of fluid at the anterior surface of the vitreous sufficient to advance the lens. If we must have obstruction as a cause, we must look for it in the vitreous itself. But we find no evidence of this, at least in the cases where this body is not shrunken or altered in structure. The same may be said with regard to the retina in relation to the accumulations found behind it, not only with choroidal tumors, but in many advanced cases of primary glaucoma. If the increased contents of the vitreous chamber can not be attributed to a diminution of its normal outflow, we must fall back upon the theory first advocated by Donders—of an increased separation of fluid from the blood; that is, an exaggeration of the normal process.

ANATOMY OF THE ZONULE OF ZINN.—Berger's investigations ("Arch. f. Ophth.," xxviii, 2) into the anatomy of the zonule of Zinn and pars ciliaris retinæ have led him to the following conclusions: 1. The pars ciliaris retinæ consist of cylindrical cells with a frame-work of fibers between, the latter appearing to be united with the vitreous lamella covering the inner surface of the pars ciliaris retinæ. This frame-work of fibers, like the elements of the retinal frame-work, is not digested by a solution of pepsin, though the cylindrical cells, the vitreous lamella, and the inner ends of the frame-work fibers connected with the latter, are digested by such a solution. 2. The vitreous lamella of the pars ciliaris retinæ is the prolongation of the membrana limitans interna. It covers the posterior surface of the iris as far as its pupillary edge. 3. The zonula originates by a small number of delicate fibers from the vitreous. 4. The zonula is closely connected with the pars ciliaris retinæ in the orbiculus ciliaris, and on the posterior part of the ciliary processes. In the central part the zonula is connected only with the points of the ciliary processes and the smaller elevations lying between them. In the anterior part the zonula is only connected with the points of the ciliary processes. 5. Between the zonule, the ciliary body, and its processes, are hollow spaces, formed by the zonula passing over the hollows between the processes instead of dipping down between them. These hollow spaces are connected with the posterior chamber, but have no connection with each other. 6. From the limitans interna and its prolongation, the vitreous lamella of the pars ciliaris retinæ, fibers run to the zonula, in a direction from behind and outward, forward and inward. The increase in the mass of fibers in the anterior part of the zonula is caused by the entrance of these fibers into the zonula. They run sometimes singly, and sometimes arranged in lamellæ. In the middle and anterior parts of the ciliary body they lie in the hollow spaces formed by the depressions between the zonula and the ciliary processes. 7. Delicate short fibers bind the zonula to the ciliary processes. They run partly forward, partly backward after their union with the zonula. 8. In young persons nuclei are found but rarely in the zonula, but in the zonula of

the newly born, and in the fœtus of six or seven months, they are numerous. In one fœtus of six months delicate capillaries were found in the zonula, but it was undecided whether they belonged to the zonula or to the vitreous. 9. The surface of the zonula toward the posterior chamber is covered with an endothelial membrane, which is demonstrable in a seven-months human fœtus. It is also to be seen on the posterior surface of the iris, and on those parts of the posterior section of the zonula which are not adherent to the ciliary body. The mode of action of the fibers running from the zonula to the pars ciliaris retinæ, which Berger calls the tensor fibers, is easily understood. These fibers are attached posteriorly to the posterior part of the ciliary body. Their anterior insertion is in the zonula. The contraction of the muscle of accommodation draws the posterior end of the choroid forward, and at the same time the posterior part of the ciliary body advances. By these changes the posterior insertion of the tensor fibers approaches the anterior insertion. By this change the tension of these fibers upon the zonula ceases. Up to this time the observations upon the living eye can not yet be made use of for deciding in what way the change of form of the ciliary processes during the act of accommodation influences the position and state of tension of the zonula. If we take into consideration the view that, in accommodation for the near point, the ciliary processes swell and approach the margin of the lens, it is evident that here the zonula is relaxed. But we can not deny the possibility that the ciliary processes during the act of accommodation recede from the longitudinal axis of the eye. If the ciliary processes in their anterior portion are drawn forward during the act of accommodation, a relaxation of the zonula may also result when the ciliary processes recede from the longitudinal axis of the eye.

HOMONYMOUS BILATERAL HEMIANOPSIA AND DECUSSATION OF THE OPTIC-NERVE FIBERS IN THE OPTIC CHIASM.—Marchand reports ("Arch. f. Ophth.," xxviii, 2) a number of cases of disease of the optic nerves and brain with homonymous bilateral hemianopsia which go to prove the theory of the decussation of fibers in the chiasm. In one case of optic-nerve atrophy in which successive microscopic sections were made of optic chiasm, nerves, and tracts, it was found that a portion of the atrophic nerve fibers, which at first ran in the upper region of the chiasm, and afterward in the middle region, were uncrossed. Another portion passed gradually to the opposite tract, and here appeared in the inferior region of the tract, and toward the inner side. The narrow border zone in the upper region of the chiasm, which at first appeared at the external border, next the uncrossed bundle of fibers, and gradually spread over the upper region of the tract of the same side, did not correspond to any atrophic zone of the other side. There must, therefore, be a system of commissural fibers, which can not be distinguished from the uncrossed bundle of fibers. Marchand thinks it certain that the uncrossed bundle contains the fibers for the outer half of the retina, but it may be assumed, from the shape of the visual defects, and from the by no means rare occurrence of a zone of transition between both halves of the visual fields, that the region of the macula and that part of the retina between it and the papilla receive fibers from both optic tracts. It is evident that the fibers which supply the lower part of the retina do not necessarily run in the lower half of the tract and chiasm. If there were complete destruction of the tract, the hemiopia would be complete; but it is different in partial destruction of one tract. If the fibers in the optic tract ran crossed and uncrossed through the entire cross-section, then large defects of any size of the tract would be constantly followed by entirely congruous defects of the visual field, for there would be the same number of fibers destroyed on the one side as on the other. This is gainsaid, however, both by the

results of anatomical examination and by the shape of the visual defects.

ACTION OF METALLIC FOREIGN BODIES IN THE INTERIOR OF THE EYE.—Leber publishes ("Arch. f. Ophth.," xxviii, 2) some further results of his observations upon the action of metallic particles in the interior of the eye. He has found that: 1. Particles of copper introduced aseptically into the anterior chamber excite purulent inflammation, but only when they are in contact with the iris. This does not occur when they are imbedded in the lens and project free into the anterior chamber. 2. If the particle of copper is suspended free in the vitreous, purulent inflammation does not arise; if it is lodged in the coats of the eye in the ciliary region, there results a circumscribed suppuration in the immediate vicinity of the foreign body. 3. Pieces of lead do not give rise to purulent inflammation either in the vitreous or in the anterior chamber. On the other hand, particles of lead suspended free in the vitreous produce the same form of detachment of the retina as is found in cases where particles of iron or copper have lodged in the eye. 4. Metallic mercury, introduced aseptically, causes violent purulent inflammation both in the vitreous and anterior chamber, which, however, is to be distinguished from septic inflammation by the fact that it does not extend to the remaining parts of the eye.

ANATOMICAL CHANGES IN CHRONIC INFLAMMATION OF THE IRIS.—Ulrich ("Arch. f. Ophth.," xxviii, 2) has been investigating the anatomical changes produced in the iris by chronic inflammation. He found a hyaline condition of the vessels in many cases, accompanied by more or less marked obliteration of their lumen. This was a marked symptom in leucoma adherens and in chronic iritis with posterior synechiæ, and to some extent in primary glaucoma. The obliteration of vessels and the fibrous thickening of the iris were the most marked pathological changes. Out of twenty-four cases, eleven were accompanied by increase of tension, and in ten of these there was hyaline degeneration of the iris vessels, with partial obliteration. Fibrous thickening of the iris was very pronounced in five cases of secondary glaucoma. It was also found in other cases without increase of tension, but where anterior synechiæ had existed for a long time. On the other hand, in cases where anterior synechiæ had not existed for a long time, as well as in cases of chronic iritis and keratitis interstitialis with iritis, the iris tissue was still in a state of hyperæmia and cellular infiltration, but there was no increase of tension. Extensive destruction of the vascular region of the iris must lead to disturbances of circulation in the vessels of the ciliary body, and fibrous thickening of the peripheral portion of the iris must make the process of filtration of the aqueous humor in this region very difficult.

MAXWELL'S SPOT.—Mayerhausen ("Arch. f. Ophth.," xxviii, 2) has been investigating the subject of Maxwell's spot, and has found that, on looking through glasses which, besides the blue and violet, completely absorb all other rays, the appearance of the spot to his eyes differs in shape from that laid down in other observations. When he held before his closed eye a plane glass of the shade F of Nitsche and Günther's scale and looked toward the sky, and suddenly opened the eye behind the glass, at the very moment of the entrance of the light he saw the extreme periphery of the Maxwell's spot constantly as a six-pointed star, instead of a circle or rhomb. In an albino whom he examined, in whom there was a total deficiency of pigment in the eyes, he found that the yellow coloring matter of the macula was present in normal extent and intensity.

PATHOGENESIS OF SYMPATHETIC INFLAMMATION OF THE EYE.—Deutschmann ("Arch. f. Ophth.," xxviii, 2) has been making some experiments as to the pathogenesis of sympathetic inflammation of the eyes by injecting the sheath of the optic nerve and the vitreous with a preparation of aspergillus spores in a three-

quarter-per-cent. solution of common salt. He found that, if the injection were made into the sheath of the optic nerve, on the day after the injection the papilla was very much injected, and the vessels markedly engorged and distorted, with all the signs of a papillitis. In some cases these lasted for several days, and then gradually subsided entirely, leaving a normal papilla. In others the inflammatory symptoms gave place, after a few days, to all the signs of atrophy, which in turn lasted for a few weeks, and then the vessels became gradually more distended and the papilla gradually regained a normal appearance. In the cases in which all the signs of papillitis were marked in the eye injected, there appeared in the fellow-eye, at a period varying between six and fourteen days, an engorgement and distortion of the papillary vessels, which increased so rapidly that in a very short time a marked papillitis was present. This lasted unchanged for several days, and then gradually subsided as in the first day, and the papilla regained its normal appearance. When the injection was made into the orbital tissue, a subsequent examination showed that an inflammatory process had been excited without any germination of the spores, as they were found unchanged, in the form of yellow nodules resembling tuberculous masses. The entire mass was adherent to the optic-nerve sheath, with moderate infiltration of the trunk and sheath of the optic nerve. In the sympathetically inflamed eyes the papillæ were swollen so that the retina seemed pushed off; they were infiltrated with nuclei, and this infiltration extended into the nerve-fiber layer of the retina. In some of these cases the pia mater in the anterior part of the base of the brain was infiltrated with lymph corpuscles. When the injection of the spores was made into the vitreous, there followed purulent inflammation of the vitreous, with violent symptoms, which, however, stopped short of panophthalmitis. Sympathetic affection of the fellow-eye appeared in seven or eight days in the guise of marked papillitis, which lasted for several days, and then subsided. An examination of these eyes showed purulent infiltration of the injected eye, with marked papillitis and interstitial neuritis, slight perineuritis of both nerves and of the chiasm, papillitis of the second eye, and infiltration of the pia mater in the anterior section of the base of the brain.

THE THEORY OF SQUINT.—In a paper upon the theory of squint ("Arch. f. Ophth.," xxviii, 2) Schneller states that a characteristic property of accommodative convergent squint is that the limits of the visual field remain still within normal conditions. He propounds the question whether every hypermetrope with good visual acuity and accommodation, and with normal muscles, the state of whose eyes is still found within certain specified limits, must necessarily squint? and answers it affirmatively, if the hypermetrope accommodates for the working distance. If, however, a hypermetrope is so circumstanced that he is not obliged to concentrate his attention on fine objects for any continuous period, he will not squint. Another causal factor to be considered in the production of squint is found in the degree of ability the persons possess of recognizing objects in circles of dispersion. This depends on, 1st, the width of the pupil; 2d, on the light-sense; and, 3d, on the psychic power of combination. A third factor in the causation of squint is the power of the accommodation. The power of fusion and the necessity for fusion of the images of the two eyes also play a very important part in the causation of squint.

CONGENITAL PARALYSIS OF THE SIXTH AND SEVENTH NERVES.—Chisolm reports ("Arch. of Ophth.," xi, 3) an interesting case of congenital paralysis of the sixth and seventh pairs of cranial nerves in an adult. There was complete congenital paralysis of the external rectus muscle on each side, causing in early life marked convergent squint from absence of muscular antagonism. In the operation performed at that time for the correction of

the squint, a myotomy was done instead of a tenotomy. The patient was never able to close the lids, from paralysis of the orbicularis palpebrarum. The skin of the face remained smooth, from paralysis of nearly all the facial muscles. In this case the sixth and seventh cranial nerves, according to Chisolm, have no cerebral origin. There is another possibility to be considered, however, and that is, the nuclei of origin may be normally developed, but the nerves themselves may not have developed at all, or may have developed for a part of their course only.

ON THE ARTIFICIAL RIPENING OF CATARACT AND EXTRACTION OF THE ANTERIOR CAPSULE.—Förster ("Arch. f. Ophth.," xi, 3) discusses the subject of the maturity of cataract, and also the means to be taken for its artificial ripening, such as pressure and corelisis. He recognizes the fact that there are cataracts which have been mature for years, in which, however, the iris still throws a shadow, and the dilated pupil is more or less illuminable by the ophthalmoscope, while, on the contrary, there are cases of immature cataract in which the iris does not throw a shadow on the lens, nor does the dilated pupil give the slightest red reflex from the fundus of the eye when illuminated with the ophthalmoscope. Anatomical examinations would seem to prove that, after every cataract extraction, portions of the cortex are left behind in the capsular fold. But in all these cases the fragments of cortex float about loosely in the capsule, or outside it in the anterior chamber, and are, consequently, not subjected to a subsequent process of opacification and swelling. A mature cataract is one in which we can positively assert before the operation that there are no longer any cortical layers which will adhere to the capsule and undergo secondary opacification. An immature cataract is one of a consistence which experience teaches us is liable to be accompanied by a layer of cortex adhering closely to the capsule. Under the head of mature are included the great majority of cataracts in which there can be no doubt, and in which there are no sectors which shine like mother-of-pearl; and also those cataracts with a very large brownish-yellow nucleus which completely fills the capsular envelope, and with no cortex at all, or only a very thin layer. In some directions as to the *modus operandi* of extracting cataracts, Förster says that the best method of clearing the capsule after exit of the lens is to push the fine, straight-toothed forceps between the lips of the incision, and, by repeatedly opening and closing it, to endeavor, in the whole length of the incision, to catch the fragments of the capsule. He then makes gentle traction. He thinks it not only unnecessary, but even injurious, to cut off these capsular fragments, as has been recommended, for the fragments are then much more liable to become incarcerated in the incision.

PURULENT CONJUNCTIVITIS ARTIFICIALLY PRODUCED BY INFUSION OF JEQUIRITY.—Wecker ("Kl. Mon. f. Augenheilk.," Sept., 1882) has been experimenting with jequirity, and has found that an infusion of the drug used locally in the eye is a sure method of exciting purulent, or rather croupous, ophthalmia. The conjunctiva becomes markedly swollen and chemotic, and covered with a croupous membrane. The application is not painful, and produces a purulent conjunctivitis as rapidly as pus inoculation.

NEW METHOD OF TREATMENT OF THE LACHRYMAL PASSAGES BY MEANS OF A DILATOR.—Galezowski ("Recueil d'Ophtal.," Aug., 1882) recommends the introduction into the nasal canal of a special dilator, not larger than a No. 4 Bowman probe, to the bottom of the duct, and then withdraw it slowly, at the same time pressing upon a second blade, which separates the sound in two to such an extent that its volume corresponds to a No. 10 or 12 probe. This dilatation scarcely draws a drop of blood, and is relatively but little painful. This is repeated every five or six days, and this treatment rarely requires to be prolonged beyond a month or six weeks.

AN OPERATION FOR THE REOPENING OF THE OBSTRUCTED IRIS-ANGLE IN GLAUCOMA.—Grossman ("Ophth. Rev.," Oct., 1882) has been trying an operation which, while avoiding the drawback of iridectomy—viz., the deformity of the pupil—effects in a higher degree than iridectomy can do the reopening, or at least the easing, of the obstructed angle at the ligamentum pectinatum. With a paracentesis needle, provided with a stop, he punctures the cornea about half way between the free margin of the iris and the limbus, or about two millimetres from the latter. After the escape of the aqueous humor, he takes a club-ended silver probe, previously bent at the end like a button-hook, passes it into the anterior chamber through the corneal wound, the convexity of the hook being directed toward the ciliary region, and tries to push it gently but decidedly forward between the cornea and iris as far and in as large a circumference as possible. With the hook he gently presses the peripheral part of the iris back toward the lens, where a distinct resistance can be felt. He repeats this proceeding a few times, and, having done so in one quadrant, he turns the convexity of the probe round, and then presses in another quadrant. He then simply covers the eye with a bandage.

A NEW OPERATION FOR PTOSIS.—Wecker ("Ann. d'Oc.," July-Aug., 1882) describes a new operation for the relief of ptosis. He dissects up an oval flap of skin and orbicular muscle for a space of four or five millimetres in length along the free border of the lid. He then passes a suture through the skin above the eyebrow, about the width of the finger above the superior orbital margin, beneath the skin and muscular tissue, and brings it out at the upper part of the wound beneath the divided orbicular muscle. He then introduces the needle again beneath the orbicular muscle near the inferior margin of the wound, and brings it out through the middle of the bridge of skin just above ciliary margin. Then, making a bridge of five or six millimetres along the ciliary border of the lid, he passes the needle and suture in a reverse direction, and brings it out just above the eyebrow. A second suture is also introduced just like the first, and at a centimetre from it. Slight traction suffices to completely close the wound, and the two ends of each suture are then tied over a little roll of kid. The results have been very satisfactory.

(To be concluded.)

New Inventions, etc.

PORTABLE APPARATUS FOR SHOWER AND VAPOR BATHS, AND FOR DISINFECTING.

Among the many appliances used for giving Russian or vapor or spray baths, or for the purpose of disinfecting, there seems to have been, until recently, nothing adapted to either or all of these uses, at the same time combining those essential requisites, cheapness, portability, and easy adjustment to the bath-tub or wash-bowl faucet, by means of which one can have in one's own bath-room or chamber the ready means of taking a vapor bath, or disinfecting the atmosphere of the sick room or rendering it moist—conditions imperatively demanded in certain forms of disease.

The *Portable Hygienic Vapor and Disinfecter Apparatus*, now in use at two or more of our city hospitals and in several private dwellings, has been found to meet the requirements referred to.

For the vapor or simple shower or needle bath, the apparatus consists of a metallic tube about three feet long, an inch in diameter, perforated with many minute holes, and hung upon hooks at the top and side of the bath-tub. One end of the tube is closed, the other connected, by means of a rubber pipe ending in a Y, with the hot and cold water faucets, to which it is attached by an adjustable bib or coupling

arranged to fit a faucet of any ordinary size. When the cold shower bath is desired, one has but to turn the cock of the cold-water faucet (or of both the hot and cold if it is advisable to moderate the temperature of the water), and hundreds of minute streams issue from the perforated tube. When the vapor bath is needed, the bather, seated at the end of the tub, out of reach of the hot streams, on a chair made for the purpose, and under a canvas or rubber cloak fastened at the neck and covering the tub, turns on the hot water, the steam from which is confined by the cloak. For the purpose of medication, or the employment of disinfectants, are two cups—one for solids, the other for liquids. The former is of metal, and contains the drug or article through which the water passes before reaching the perforated tube. The cup for liquids is of glass, connected with a metallic air-chamber, so arranged that the liquid is fed, drop by drop, against the pressure of the water, until the cup is emptied. The ingenuity of the inventor (a lad of sixteen) is here apparent. For direct inhalation of vapor, the apparatus, constructed somewhat like the ordinary shower bath, is adapted to the wash-basin faucets, and the vapor inhaled through an opening in a cloak made for the purpose.

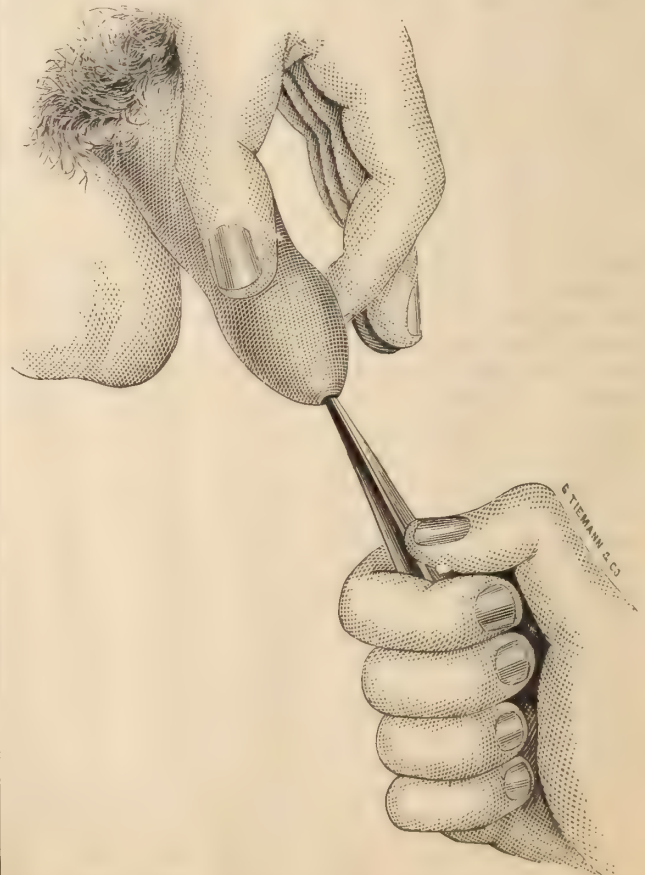
The apparatus is on exhibition at the rooms corner of Thirty-first street and Broadway, under the Grand Hotel.

A PHYMOSIS FORCEPS.

By J. H. GIRDNER, M. D.

As I have already published a description of this forceps, I will not now speak of its mechanism, but will add a few words of explanation as to the manner of using the instrument.

Grasp the penis between the thumb and forefinger of the left hand, and draw the prepuce as far back as possible, or until the mucotegumentary junction forms the boundary of its opening. The instrument is taken in the right hand and the blades are pressed together until the



points are completely closed, when it is introduced into the preputial opening until the barbs have passed just within the opening above and below.

Now the grasp on the instrument is slowly relaxed, and the spring, pressing the jaws apart, causes the barbs to transfix, first the mucous membrane, and then the skin. Now traction is made on the instrument, and the skin and mucous membrane are both drawn out together, and are cut off at one stroke just in front of the glans penis; they both recede together, and, when the sutures are applied, the edges coaptate perfectly, having been cut at the same stroke, and unite by first intention in from twenty-four to forty-eight hours, leaving no cicatrix, as when union takes place by granulation. If Ricord's forceps is used, or any of the others found in the shops, which take hold of the skin outside, it will be found that the skin rolls on the mucous membrane through the medium of the large amount of loose areolar tissue between these two surfaces, and the incision includes only the skin, which recedes and leaves the mucous membrane still covering the glans, which requires to be slit and turned back. Even then it does not accurately fit the cut edge of the skin, and must heal by granulation, thus leaving a scar, to say nothing of the slovenly appearance of the operation.

This forceps can be had of Mr. W. F. Ford, Mr. J. Reynnders, or Messrs. George Tiemann & Co., all of this city.

Miscellany.

MALARIA IN SKIN DISEASES.—Dr. Lunsford P. Yandell, of the "Louisville Medical News," writes as follows: "Some time since the following paragraph appeared in the 'Michigan Medical News,' and has been widely copied in the medical journals of the country:

"A century ago John Hunter divided all skin diseases into three classes, one of which is cured by mercury and the iodides, a second by sulphur, and a third class which the devil himself can't cure. Dr. L. P. Yandell, who quotes Hunter as above, is given credit for a much less complex classification than even this. He attributes all skin eruptions to malaria. Quinine is a specific for malaria; ergo, quinine is the remedy for all skin eruptions. Q. E. D."

"I trust that my confrères of the press will do me the kindness and the justice to publish the correction now given, as the matter is not only one of personal interest to the writer, but is of scientific interest to the profession. The subjoined extracts are from a supplement to a report read to the American Dermatological Association, September, 1877. A copy of this report will be gladly sent to any one desiring it:

"From the criticisms which have been made on my views, I find that I have not succeeded in making myself perfectly understood. What I have contended for, and what I have reiterated, is simply this: Malaria is the chief source of acute skin disease. Scrofula is the chief source of chronic skin disease. The more inveterate cases of skin disease are often due to the co-existence of these two things. The specific exanthems, of course, are not included here, but I contend that their protraction and termination are often largely by the presence of malaria, or struma. I do not claim that malaria and struma are the sole causes of the dermatoses. Indeed, many of the dermatoses may exist independently of malaria or struma, and most frequently some exciting cause is necessary to develop the cutaneous eruption. Among the exciting causes are irritants, injuries, insufficient or improper ingesta, vicissitudes of temperature, alcohol, dentition, menstruation, parturition, lactation, etc. The proofs of the truth of my views are, in the first place, that the diseases of the skin are cured more certainly and more quickly by the antimalarial remedies on the one hand, and by the antistrumous on the other, than can be done by any other line of therapeutics; and, in the second place, that careful and painstaking investigation will, in the majority of dermatoses, make apparent the existence of the malaria or the struma, as the case may be.

"In conclusion, I desire to impress upon the reader that my views are not confined to the skin diseases. What produces disease here will produce it in all other organs of the body. What is true of dermatology is equally true of gynecology and ophthalmology and otology, and it is just as true of the diseases of all the other regions of the body."

"Subsequent observation has confirmed my belief in the correctness of these views."

THE NEW YORK SOCIETY FOR THE RELIEF OF WIDOWS AND ORPHANS OF MEDICAL MEN.—The annual statement of the affairs of this society for the year 1882 shows that the members now number one hundred and forty-two, of whom ninety-four are for life, and forty-eight annual subscribers. The number of benefactors living is twenty-two, of whom one is a layman; deceased, thirty, of whom six were laymen. The society has extended aid to thirteen widows and four children of deceased members during the year.

The financial condition of the society (as audited) for the year ending September 19, 1882, is as follows:

Total Assets, September 15, 1881. \$135,459 68

RECEIPTS.

Interest on Mortgages and from United States	
Trust Company, etc.	\$6,331 79
Dues and Initiation Fees of Members.	1,575 00
Legacy from Estate of Simeon Abrams.	2,248 70
	\$10,155 49

DISBURSEMENTS.

Annuitants.	\$4,288 00
Indispensable Expenses—Postage,	
Printer, Safe Deposit.	84 68
Making Total Disbursements.	4,372 68

Which, deducted from Receipts, leaves a Net Increase of. 5,782 81

Making Total Assets September 19, 1882. \$141,242 49

Consisting of—

Amount invested in Bond and Mortgage.	\$115,500 00
Amount in United States Trust Company.	25,389 08
Amount in Bank of America.	853 41
	\$141,242 49

Cash Account.

Balance in Treasury September 15, 1881. \$21,459 68

RECEIPTS.

Interest from all Sources.	\$6,331 79
Members' Dues and Initiations.	1,575 00
Legacy from Estate of S. Abrams.	2,248 70
	10,155 49
	\$31,615 17

DISBURSEMENTS.

Invested in Bond and Mortgage.	\$1,500 00
Annuitants.	4,288 00
Expenses.	84 68
	\$5,872 68
Balance in Treasury September 19, 1882.	25,742 49
	\$31,615 17

DR. EDWARD C. SEGUIN.—At a stated meeting of the New York Academy of Medicine, held November 16, 1882, the following preamble and resolutions, reported by a committee appointed by the president at a former meeting, were unanimously adopted:

Whereas, Dr. E. C. Seguin, an honored fellow of this Academy, has been stricken with a domestic calamity so overwhelming as to paralyze him with despair, and so heartrending as to command universal compassion; therefore,

Resolved, That the Academy of Medicine offer to Dr. Seguin the expression of its profound and respectful sympathy and commiseration.

Resolved, That while the Academy regards with solicitude the effect which this tragic bereavement may have upon a useful and brilliant career, it will cherish the hope that Dr. Seguin may recover the spirit and the strength to return to his home, and to take up his work in the sphere in which he has already achieved wide and well-merited renown.

Resolved, That a copy of these resolutions, signed by the president and secretary of the Academy, be forwarded to Dr. Seguin, and be published in the medical journals of this city.

QUINOLEINE.—This artificial alkaloid, C^9H^7N , made by distilling quinine or cinchonine with potash, has been studied, as regards its physiological and therapeutical effects, chiefly by Donath, von Jaksch, and Biach and Loimann; and what is known of them is briefly summarized by an anonymous writer in a recent number of "*Le Progrès Médical*." The leading physiological effects are: a notable lowering of the temperature, irregularity and diminution of the respiratory movements, nausea and vomiting, a sense of humming in the ears, and a feeling of pressure at the nape of the neck. Poisonous doses produce increased frequency of respiration, diminution and finally abolition of reflex excitability, complete paralysis, and death, often with pulmonary hyperæmia and œdema. The alkaloid and its salts have antiseptic properties, and might be used as a substitute for quinine, over which they have the advantage of being cheaper.

The tartrate and the hydrochlorate are the only salts of quinoleine that are employed subcutaneously. According to von Jaksch, who has used the hydrochlorate hypodermically in doses as large as three grains, such injections are painful, and are often followed by rather extensive infiltration of the subcutaneous tissue. The tartrate is to be preferred; it is of a pale color, has a less pronounced odor, and is soluble in water and in alcohol, but not in ether. The medium dose, as a subcutaneous injection for an adult man, is from three to fifteen grains.

With varying results, the salts of quinoleine have been used in intermittent fevers, neuralgias, typhoid fever, whooping-cough, tuberculosis, pneumonia, erysipelas, septicæmia, etc. Their real value can not yet be stated, and further investigation is desirable. For their history and chemistry, references are given to Würtz, "*Dictionnaire de Chimie*," t. iii, and to an article by Skraup in the "*Monatshefte für Chemie*," 1881, p. 139.

DEATH OF M. DAVAINÉ.—In a recent number of "*Le Progrès Médical*" we find a note announcing the decease of M. Davainé, at the age of seventy years. Davainé's contributions to helminthology are well known, and the journal alluded to credits his writings with having played a leading part in clearing up the question of the anthrax group of diseases in man and in the lower animals.

MEDICAL EXPERT TESTIMONY.—It is doubtful if a physician is ever placed at greater disadvantage before the public than when occupying the witness-stand as an expert. His audience is usually critical and exacting, and any lack of dogmatism and promptness in his testimony is usually attributed to imperfect and inexact information upon his part. The fact that most physicians are unaccustomed to discussing professional questions before lay audiences adds to the difficulties of the situation, and the embarrassment of a cross-examination by a shrewd attorney often involves the witness in doubtful and ambiguous statements concerning familiar facts of medical observation. Hence the situation is a most trying one for those best qualified to testify upon any given branch of medical science and practice, and criticism in any given instance should be lenient.

It is always a matter for regret, however, when an overweening desire for notoriety induces a medical man to take the stand to testify relative to scientific matters in which his information is inexact and untrustworthy. Under such circumstances he is almost sure to bring disaster upon his own reputation, and to seriously damage medicine as a science in the public estimation. Such a case has recently occurred in Michigan, in which a physician was so imprudent as to appear as a witness for the plaintiff in an action against a brother physician for malpractice. According to the published account of the testimony, this widely known physician confessed under oath to a very limited knowledge of anatomy, and, in response to a question, admitted that he had never seen nor treated such a case as the one under consideration.

Such an exhibition is always damaging to the highest interests of the profession, and mortifying to its members. Before mounting the witness-stand physicians should be thoroughly posted in all the details of the questions at issue, and should speak dogmatically only concerning those features of the case in which they are qualified to substantiate the statements made. To speak long and learnedly in response to questions is always enticing; to be brief and cautious is wise.—*Louisville Medical News*.

AN ARMY SURGEON ON SHOES.—At a recent meeting of the Hygienic Congress at Geneva, says the "*Scientific American*," Colonel Ziegler, who is chief surgeon of the Federal army, read a paper on the evil effects of badly made shoes, with special reference to hygiene and the marching power of soldiers. Colonel Ziegler mentioned that the Swiss examining surgeons were compelled to reject every year 800 recruits—the strength of a battalion—for malformation of the feet, resulting from badly fitting shoes. The foot is in reality a bow, so elastic that, at every step, it contracts and expands, lengthens and shortens, and a line drawn through the center of the great toe intersects the heel. But shoemakers, who are generally utterly ignorant of the anatomy of the foot, do not give room enough for the lateral extension of the great toe. They crib, cabin, and confine it until it is forced against the other toes. Hence arise frequent inflammations of the great toe, corns, ulcerations, and sometimes veritable articular inflammation. Another evil which Colonel Ziegler ascribes in great measure to bad shoeing is flat-footedness, whereby the arch is converted into a straight line, and prolonged walking and marching are rendered impossible. Another cause of this defect is the habit of carrying heavy weights at an early age; but in most instances, Colonel Ziegler contends, perfect shoes would restore the foot to its normal condition. The first obstacle to a reform in the shape of shoes lies in the fact that it would involve a great expense in the shape of new lasts—an expense that shoemakers are naturally loath to incur. Fashion has also its lasts, and shoemakers consider themselves bound to conform to the prevailing mode. A test of a perfect pair of shoes is that, when placed together, they should touch only at the toes and heels; the soles should follow the sinuosities of the feet, and, to give room for their expansion, should exceed them in length by fifteen to twenty millimetres.

PEPPERMINT OIL IN HERPES ZOSTER.—Dr. Meredith, of Birmingham, England, finds that peppermint oil, applied locally, is capable of rapidly allaying the pain of herpes zoster.—*New Remedies*.

MARINE-HOSPITAL SERVICE.—*Official List of Changes of Stations and Duties of Medical Officers of the Marine-Hospital Service, July 1, 1882, to September 30, 1882.*—HUTTON, W. H. H., Surgeon. To inspect keepers and crews, Life Saving Service, July 11, 1882. — MILLER, T. W., Surgeon. To inspect keepers and crews, Life Saving Service, August 7, 1882. — WYMAN, WALTER, Surgeon. To inspect keepers and crews, Life Saving Service. — LONG, W. H., Surgeon. Granted leave of absence for ten days, July 1, 1882. Granted leave of absence for fourteen days, September 16, 1882. — MURRAY, R. D., Surgeon. To proceed to Brownsville, Texas, August 21, 1882. — PURVIANCE, GEORGE, Surgeon. To inspect keepers and crews, Life Saving Service, July 13 and 18, 1882. To report for temporary duty at Washington, August 23, 1882. To report for temporary duty to Chairman, Board of Examiners, revenue bark Chase, at Norfolk, August 26, 1882. — SMITH, HENRY, Surgeon. Granted leave of absence for thirty days, July 5, 1882. — FISHER, J. C., Passed Assistant Surgeon. To report for temporary duty to Chairman, Board of Examiners, revenue bark Chase, at Norfolk, August 26, 1882. — IRWIN, FAIRFAX, Passed Assistant Surgeon. Granted leave of absence for thirty days, July 28, 1882. — CARTER, H. R., Passed Assistant Surgeon. To proceed to Hickman, Ky., for temporary duty, August 10, 1882. To proceed to Memphis, Tenn., for temporary duty, August 12, 1882. To proceed to Little Rock, De Vall's Bluff, and Newport, Ark., as inspector, September 16 and 21, 1882. — PORTER, F. D., Assistant Surgeon. To proceed to St. Louis, Mo., for temporary duty, August 21, 1882. To report to Surgeon Sawtelle for examination for promotion September 1, 1882. To rejoin his station (Chicago) when relieved by Assistant Surgeon Urquhart, September 1, 1882. — BENSON, J. A., Assistant Surgeon. To proceed to Cairo, Ill., for temporary duty, August 12, 1882. — DEVAN, S. C., Assistant Surgeon. To join revenue steamer Corwin for cruise in Alaskan waters, July 10, 1882. — URQUHART, F. M., Assistant Surgeon. To proceed to Wilmington, N. C., for temporary duty, July 26, 1882. To proceed to St. Louis, Mo., for temporary duty, September 1, 1882. *Promotion.*—PORTER, F. D., Passed Assistant Surgeon. Promoted and appointed Passed Assistant Surgeon by the Secretary of the Treasury, from October 1, 1882. September 14, 1882.

Lectures and Addresses.

LECTURES ON HUMAN AUTOMATISM.

DELIVERED AT THE LOWELL INSTITUTE, BOSTON,

By WILLIAM B. CARPENTER, M. D., LL. D., F. R. S., ETC.

LECTURE I.

(Concluded from page 4.)

The *neurosis*, or physical action of the nerve-substance, has a very close relation to electricity; but, though electricity may imitate some of its effects, yet it is perfectly certain that nerve-force is quite distinct from electricity; and I only advert to their relation to clear your minds from any confusing idea you may have as to their identity. There is no doubt that both chemical changes and electrical changes occur in the working of the nervous system. It has been shown, for example, that, when light falls upon the retina, a chemical change, indicated by an electrical manifestation, is called forth; but that chemical change is really (I think) only the symbol of the nervous change, the *neurosis*. It is the nervous change which is the essential part; and it is only by the excitement of this *neurosis* that the psychosis can be produced. It is entirely through our bodily organization that our minds are kept in communication with the external world. Supposing all the inlets to sensation closed, the mind would acquire no knowledge whatever of that world. You are well aware of the case in this city—which has been a celebrated one throughout the world, owing to the admirable manner in which it was dealt with by my old friend, and your friend, Dr. Howe—in which the greater part of the inlets of sensation were closed, so that it was only through the touch that impressions could be received; and these, in the first instance, only drew forth the simplest and most elementary forms of mental activity. But, by the persevering use of the sagacious method devised by Dr. Howe, the higher forms of thought were awakened in Laura Bridgman through the medium of language, so that her mental life has not differed very considerably from our own; I mean, of course, as to its general character.

On the other hand, we may have an almost complete loss of the power of the mind to express itself in action. One organ after another may be paralyzed, and that paralysis may extend to everything but the parts of the muscular apparatus that are essentially concerned in the maintenance of those organic functions which build up and sustain the nervo-muscular apparatus—without affecting the activity of the mind, which may express itself to others, if only one single muscle remains obedient to the mental impulse. Some of you, I dare say, recollect in one of Dumas's sensational novels the case of an old man, the head of a family, who controlled that family, and especially prevented a marriage from being forced upon his granddaughter which was distasteful to her, by the simple winking of his eyelids, which was the only movement over which he retained any voluntary con-

trol. The movements of respiration, swallowing, etc., will go on automatically, as I shall hereafter describe to you, when all voluntary action is suspended; and the novelist does not seem to me to have gone beyond the possible truth in representing this old man as having no other mode than the winking of his eyes of expressing his mental determinations, and thereby governing his family.

It may have occurred to some of you, perhaps, as it has to myself a good deal lately, that our mental power is often exerted most strongly through the smallest of our muscles; and this alike in our ordinary daily communications, and in those which have the most important and wide-reaching influence.

Think what are the movements of speech. We are obliged to make use of the respiratory muscles; but, then, these are always in automatic activity; and what we do in speech is to exercise a certain regulation and control over them, so as to make the supply of wind (to revert to our former simile) conform to the demands of our vocal organs. But the muscles which are really employed in vocalization—in the production of vocal tones and in the articulation of language—are among the smallest in the body. Look, again, at the muscles of expression. The slightest twitch of the face may give the turn to the lives of two persons, who, without knowing it, are in that state of mutual attraction, which just needs the revelation of each to be made to the other, by (as it were) the closing of the circuit that shall bring them together. And so, again, the act of writing is mainly done by some of the small muscles of the fingers, the large muscles of our arms being used very little indeed. The same is the case in the telegraphic transmission of messages—a point that happened to occur to me not long ago, when Lord Granville telegraphed the order to the commander of the British naval force off Alexandria, "Bombard the forts to-morrow morning." If you think of the small twitches that were given by the telegraph clerk to the needles that conveyed that order, you will, I think, feel with me that scarcely a more "pregnant instance" could be adduced of the truth of one of the most pithy sayings of the great sage who has recently passed from among you: "Thoughts rule the world." Here was a thought that dominated a vast amount of physical power, and yet that domination was exerted through the smallest muscles of the body.

And I am thus led to another point which I hold to be of fundamental and essential importance—that there is no "common measure" between our mental and our physical activity. The chemical tests, the electrical indications, the mechanical measurements, which we bring to bear on the phenomena of muscular movement, will measure the physical energy that those muscles put forth, and the force of the *neurosis* which calls those muscles into action; but we can not thus measure the mental force which willed the movement, the force of the *psychosis*, which was the immediate antecedent of the *neurosis*. These two I hold to be utterly and completely *incommensurable*. True it is that we may to a certain extent measure the quantity of nervous tissue that is (to use the term in its physiological sense) "wasted"

in various forms of mental activity. The application of chemical tests to the kidney-secretion shows that there is such a "waste," and that its amount is in some degree accordant with the severity of the strain (so to speak) which we put upon our nervous organization. It would appear that the brain wastes more rapidly when we are fixedly directing our attention to a particular subject which we find it rather difficult to comprehend than when we are reading a pleasantly written book, the ideas of which we readily take in. This point was worked out a few years ago by my friend Professor Haughton, of Dublin, one of our "all-round" men, who is a good chemist and physicist, an eminent mathematician, and an able physiologist. Applying all this trained power to the investigation of the question, he came to the conclusion that, while a simple placid *exercise* of the mind would be attended with a certain amount of "waste," in proportion as the mind was made to *exert* itself in study by the fixed direction of the attention, and in proportion as that study was found more and more difficult, requiring more and more determination on the part of the subject of the experiment to master the ideas that the book conveyed, the greater was the "waste" of nervous tissue. But that does not give us any measure whatever of the *kind* of thought which was passing through the mind of that subject, or of the importance of its results. These results might be quite barren, or might be of the highest intellectual value. A fruitless attempt to solve a crabbed mathematical problem might produce as much "waste" of brain as was involved in the discovery of the law of gravitation or the invention of the differential calculus. And so of the moral power of those "thoughts that breathe and words that burn"—can that be measured by the amount of brain-waste? I remember once listening to a very able lecture, at the Royal Institution, by Professor Alexander Bain, who spoke of this correlation between the nervous waste and the thought upon which the brain was employed, as a thing that was so surely indicated that there could be no question about it; that we had not, it was true, demonstrative evidence of it, but that everything pointed in that direction; and he quite anticipated the time when our methods of research would be so refined and delicate that this relation would be clearly traced out. A friend sitting next me remarked at the close of the lecture: "It will be a very long time yet before we shall be able to measure how much bacon-fat went to the composition of 'In Memoriam.'" I think you will all feel that that remark was perfectly just and relevant. In the exertion of physical power we can trace its correlation with other forms of physical force; but there is no such measure for mental activity. Thus, when a muscle is called into contraction by the electric stimulation of its nerve, we can determine the amount of chemical change which takes place in the substance of that muscle, and the quantity of oxygen consumed in effecting it; and, by our previous knowledge of the mechanical and calorical equivalent of the amount of muscle-sugar consumed, it can be shown that the mechanical work done, *plus* the heat generated in the act of contraction, makes up the whole "energy" which that combustion can produce.

But does any one dream of being able to measure a

thought or feeling that does *not* express itself in muscular movement by any kind of balance or electrometer? Any such attempt seems to me to be utterly futile; a true "waste" of energy in a pursuit far less likely to succeed than the transmutation of metals or the production of diamonds; for both these things lie within the material sphere; while the sphere of mental action and the sphere of bodily action seem to me to be entirely separate and distinct, coming into contact only at that mysterious "junction" at which *neuroses* and *psychoses* are translated each into the other. That junction takes place over two lines; the one being that through which the physical impressions enter and are rendered into sensations; and the other that at which the volitions pass forth to express themselves in muscular movements. And I think that, if you keep in view that aspect of the relation of our bodies to our minds, you will find it to be the one which most completely accords alike with our own consciousness and with the general facts which we observe in the world around us.

Let us consider some of these leading facts. In the first place, no one who studies the mode in which hereditary qualities are transmitted, and traces the effect of their transmission in the whole mental life of the beings it affects, can doubt that there is through the body a certain shaping of the mental nature. On the other hand, it seems to me to be equally clear that the mental nature, properly trained and disciplined, can, as John S. Mill came to feel in later years, shape itself, and can not only shape itself, but shape the bodily organism. We have a familiar instance of this in the training of the bodily organism to do work which we can not do when we begin. We are constantly thus training ourselves—as in writing, drawing, music-playing, and the like. And I regard this relation of the body to the mind as very much that of the horse to his rider, who trains him to execute his behests, to turn at the twitching of his bridle, to stop when the reins are pulled in, and so on. By keeping that simile in view, I think you will find that you will come to a clearer apprehension of the mode in which that direction is exerted. The body is essentially, I think, automatic in its operation. We shall find our first evidence of this in the study of those movements which are immediately concerned in the maintenance of our organic life. If it were not, in fact, for the strict and pure automatism of those movements, we should cease to respire. Whenever our attention to them might be called off, our heart would cease to beat, the air-cells of our lungs would no longer be alternately filled and emptied, and we should not be able to swallow (as I shall hereafter show you), even by a *volitional* determination. The maintenance of our whole organic life is committed to a strictly automatic part of the apparatus; a certain voluntary control being given in some instances which renders that automatism subservient to our purposes. For example, we breathe regularly and slowly at a certain rate, which may be slightly modified by the exercise we take; we continue to breathe during repose, and even in the most profound sleep; and it is only when the action of poisons paralyzes the nerve-centers, or when the supply of blood to them is defective, that we cease to breathe. But, on the other hand, we have a certain control over our

movements of respiration; and it is by virtue of that control that we are able to use our organs of speech. Although I can not go on without breathing while I am addressing you, yet I can so regulate and time my respiratory movements that I can use the outgoing current for the purposes of vocalization; and I think we may draw from this act some very useful indications of the nature of bodily automatism, and the relation of the will to it, which will help us in conceiving of the same processes mentally.

Besides the ordinary automatism of respiration, there are several other respiratory movements which take place automatically under certain occasional conditions. If, for instance, I draw into my windpipe a crumb of bread or a drop of water, by the coincidence of an inspiratory movement with the act of swallowing, the presence of such a particle produces that violent explosive semi-convulsion which we call the act of coughing. This act consists, first, in the involuntary closure of the glottis, which is the outlet of the windpipe, and, secondly, in a sudden and violent spasmodic action of the muscles of expiration, the tendency of which is to drive forth the offending particle. If the entrance of an irritating gas is the exciting cause, the action is just the same.—Now, although the act of coughing is in itself purely automatic, yet it is one which we can reproduce by an act of the will. I can say to myself “cough,” or can say to another person “cough,” and a cough shall follow. I do not know how it may be in your Congress, but *we* know very well that coughs are sometimes got up in our Parliament to induce a troublesome speaker to “shut up”; and it probably falls within your experience that coughs are often intentionally used as little signals. On the other hand, we may sometimes be very desirous of controlling a cough, and may do so by an exercise of the will, if the automatic stimulus be not overpoweringly strong.

The point to which I would now specially call your attention is this—that the mental determination to cough exactly replaces the stimulus by which the cough is excited under ordinary circumstances. The change in the respiratory nerve-center which produces the muscular movement may be called forth either by an impulse transmitted through the afferent nerves which pass to it from the windpipe, or by the downward transmission of a similar impulse along what have been called the “nerves of the internal senses”—the fibers which descend from the convoluted substance of the cerebral hemispheres to the respiratory centers at their base. That substance is the instrument of our intellectual operations; and it is through these descending fibers that the results of our volitional determinations affect the lower portions of the nervous system. And just as one mode of excitement takes the place (as it were) of the other, so, as it seems to me, we are able to bring to bear upon a course of thought which is in itself automatic the same volitional direction or determination as we bring to bear upon the act of coughing. Just as we substitute cerebral action in the latter case for the stimulus which is brought to the nervous centers from the organ of voice, so we can bring the will to bear upon our course of thought and feeling; controlling, and it may be suppressing (as when we try to suppress a cough), that which we desire to

keep under, and exciting that which we wish to render predominant.

This may seem a little difficult to you just now; but I shall hope to make clear to you as we proceed that there is a close parallelism between the two modes in which the effort of mind thus manifests itself in directing and controlling an automatic bodily movement, and in directing and controlling the course of our thoughts or the play of our feelings.

And having spoken generally of the automatism of our bodies, I shall conclude this lecture by giving you a very simple illustration of it. I said that we had to train our bodies to execute our behests. You know perfectly well the training that the young child has to go through, first to make him stand upon his legs, and then to walk. When he has acquired that training by practice, the mechanism has been so developed, the physical conditions have been so shaped out in his nervous system, that this action will take place thereafter mechanically or automatically. We can *voluntarily* set our legs in action to walk, and we can voluntarily stop them at any moment; yet the walk shall go on automatically while our attention is otherwise engaged—in talking with a friend, for example. So long as we keep it up without fatigue, and, consequently, without effort, it is not a *volitional* movement. The distinction between voluntary and volitional is a very simple but a very important one. The “volitional” implies effort; the “voluntary” only implies that we can control it if we choose to do so. You set out to walk with a friend, and you fall into conversation with him; your attention is entirely given to your subject of conversation; your thoughts and feelings express themselves in language, and are received, each by the other, through his auditory sense; your minds are engaged entirely upon the subject you are talking of; and your legs go on *of themselves* without your giving any attention to them; so that it may not be until you find yourselves come to the end of your walk, or perhaps in some place to which you did not intend to go, that you exercise any voluntary control over them, and “pull yourselves up.” Now, on the other hand, if you take a long walk into the country, you may be after some time to feel that you can not prolong that walk without effort; your movements are no longer strictly automatic, but *make* themselves felt; you can not avoid feeling the fatigue that forces itself upon your attention; what, then, have you to do? You have to throw into every movement a distinct purposive effort; that “effort” is one of which we are *immediately* conscious; and we know that the feeling of fatigue which results from it is the mark and measure of the muscular energy that we throw into the action.

Now, here, again, we have a most striking parallelism between mental and bodily action. Our thoughts may be flowing freely without any constraint or control; we may be reading a book that interests us, and, if we readily take in its meaning, we do not feel it necessary to make any *effort* to keep our attention fixed upon it, our thoughts being automatically attracted to it. But some other object of interest comes in the way; a new book, for instance, comes in, which we should like to look at; or we hear a piece of music played that we should like to attend

to; and the temptation is strong to intermit the attention that we have been giving to the book. Now, to maintain that attention an effort is required. If we desire to complete our task, if we are determined to finish that book before we leave off, we intensify that desire by our own act, keeping our attention fixed on the book in opposition to the other attraction. And the sense of fatigue that we subsequently experience is, I think, the mark and measure of that effort; and the "waste" of nervous tissue that takes place will probably, as I just now said, more closely correspond with the effort it has cost me to *fix* my thought, than with either the quantity or the quality of the thought which has passed through my mind.

Original Communications.

A CONTRIBUTION TO THE SUBJECT OF THE REMOVAL OF THE UTERINE APPENDAGES (TAIT'S OPERATION) FOR PROLONGED MENSTRUAL TROUBLES, WITH RECURRENT PELVIC INFLAMMATIONS.*

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IN the issue of the "British Medical Journal" for July 29, 1882, appeared a remarkable essay by Mr. Lawson Tait, of Birmingham, England, enunciating views entirely at variance with those heretofore held by the medical profession, advocating pathological tenets which were altogether new, and recommending a plan of treatment which is at once original and bold.

This article was entitled "Remarks on the Diagnosis and Treatment of Chronic Inflammation of the Ovary," and I refer to it at some length to-night, first, because my own paper is based upon its suggestions; second, because I feel sure that the positions which it assumes will interest the Fellows of the Academy, even if they deny their validity; and, third, because I myself feel convinced that this bold and original surgeon has advanced views which are destined to open a new field for gynæcological surgery in the future, and to exert upon this department of medicine an enduring influence.

I propose to give to-night, in as succinct a manner as possible, those points in the paper which are original with Mr. Tait; and I would say here that, while I do not by any means feel warranted by my own experience and observation in accepting all of them, I do believe that there is a sufficient amount of truth in some of them to make the essay one of the most valuable which this decade has produced for the gynæcologist.

Since that period which constituted so remarkable an era in the history of gynæcology—when Henry Bennet, of England; Simpson, of Scotland; and Marion-Sims, of Ameri-

ca, brought their eminent labors to bear upon this department of medicine—until the present time, a vast deal of attention has been directed to the uterus, the vagina, the uterine ligaments, and the pelvic peritonæum and areolar tissue; while diseases of the ovaries and Fallopian tubes have been left enveloped by a cloud of ignorance and uncertainty which few have endeavored to penetrate and dispel. Tilt, of London, the firm, persistent, and able advocate of the claims of ovarian pathology, has during this time stood almost alone, steadily and consistently enunciating views with which few sympathized, and still fewer indorsed and sustained. At the present time it may safely be stated that a wholesome revolution is occurring in this respect, that reflective men devoted to gynæcology are now recognizing that a very large proportion of cases of menstrual disorder, pelvic neuralgia, and difficult locomotion, which were formerly attributed to the uterus, its ligaments, or the pelvic areolar tissue, are entirely due to ovarian disorder, and that hundreds of cases in which that devoted organ, the uterus, was cut, cauterized, and leeches, had the same pathological origin. Mr. Tait's paper deals with this most prolific subject, and for this reason, added to those which I have mentioned, must be regarded as a most opportune effort to cast light where the darkness is most dense in gynæcology, and to offer aid in a class of cases in which the operator in this department needs most assistance.

The following points may be given as the most original and valuable of the views enunciated by Mr. Tait:

1. He assumes that the view formerly held—that laparotomy operations should be postponed until absolute risk to the life of the patient rendered them necessary—should now be abandoned; and that, in the hands of an expert, they are at present so free from danger as to be justifiable even when life is not jeopardized.
2. That the usually accepted doctrine of the dependence of menstruation upon ovulation is wholly erroneous.
3. That the ovaries have nothing whatever to do with menstruation, and that this phenomenon is dependent upon the Fallopian tubes.
4. That many cases of abnormal menstruation are justifiably treated, and are relievable in no other way than, by extirpation of the ovaries and tubes.
5. That in chronic ovarian disease the tubes are invariably involved, and that in most cases it is the tubes which are chiefly at fault.
6. That the mortality in his last thirty-five operations having been only one, even this slight loss of life is susceptible of diminution in the future.
7. That many of those cases heretofore regarded as instances of menstrual, or recurrent, pelvic peritonitis or cellulitis, are really due to tubal dropsy and ovarian disease, an occasional discharge of the purulent accumulation of the former giving rise to slight and passing attacks of these affections.

This last statement Mr. Tait does not make in the paper to which I have alluded. I am indebted for it to my friend Dr. Emmet, who, in a recent visit to Europe, obtained it from a personal conversation with that gentleman.

As many of the Fellows of the Academy have paid little

* Read, with the exhibition of specimens, before the New York Academy of Medicine, December 21, 1882.

attention to the subject which engages us to-night, it may not be out of place for me to make a short statement concerning it which will make my paper more comprehensible, and at the same time give it an interest which it might otherwise lack.

Removal of the uterine appendages, as it concerns my remarks to-night, has nothing whatever to do with the subject of ovariectomy. The latter operation is resorted to for the removal of large and increasing tumors, which, if not removed, almost invariably destroy life within a few years. The former is generally performed for severe menstrual disorders and nervous troubles taking their origin in the uterine annexæ, which, while they do not jeopardize life, render it utterly miserable and intolerable.

The history of ovariectomy is well known; that of oöphorectomy, and the modification of that operation, which concerns us to-night, is so short that it may be summed up in a few sentences. In July, 1872, Professor Hegar, of Germany, first performed the operation of extirpation of the ovaries when not affected by tumors, and five days afterward it was performed by Mr. Tait, of England. Neither of these operations was published. In August of the same year, only one month later, Dr. Robert Battey, of Georgia, not only performed the operation as an original conception, but published it to the world, and obtained for it the consideration of the profession. The credit of establishing oöphorectomy upon a secure basis has therefore been justly accredited to him, although he was immediately preceded by two operators. The operation to which Mr. Tait lays claim, and which will in the future receive the name of Tait's operation, consists in the removal of the Fallopian tubes as well as the ovaries: *First*, because he believes that in that way alone menstruation can be controlled; and, *secondly*, because he regards tubal disease, salpingitis, and tubal dropsy as universally present with chronic ovaritis, and as being the more important of the two pathological factors.

In the short essay which I present this evening, I do not propose to consider Mr. Tait's views in an analytical manner. I intend merely to report four cases in which very grave menstrual trouble, accompanied by all the symptoms of recurrent pelvic peritonitis and cellulitis, were found due to tubal dropsy existing coincidentally with chronic ovaritis, exactly as Mr. Tait has described it as so often doing. This is all to which my paper pretends, for the cases reported are of too recent occurrence for me to draw any deductions as to the remote results of the practice of Tait's operation upon them.

CASE I.—Mrs. R. W., a colored woman, who was born in North Carolina, thirty years of age, menstruated at fourteen, has been married nine years, and is the mother of one child, eight years old, entered my service in the Woman's Hospital with the following history: Her menstruation was perfectly normal up to the period of weaning her child, eighteen months after delivery. In reference to the year and a half immediately following the birth of her child, no symptom bearing with any prominence upon her case can be elicited. At that time, in the intermenstrual period, she was taken with very sudden symptoms resembling those of cellulitis or peritonitis, accompanied by a

slightly bloody discharge from the vagina. This attack confined her to bed for one week, and since its occurrence she has been a confirmed invalid. Her menstrual periods have been painful, scanty, and irregular; she has suffered constantly from neuralgic pains in the pelvis; locomotion has been difficult, and standing so painful that she has been unable to gain a livelihood, or even to attend to her ordinary household occupations. She has had an attack of severe pelvic inflammation, similar to that already described, about once a year, almost invariably about the menstrual period. During the past eighteen months she has been almost constantly a sufferer from pain in both ovarian regions and across the back, headache, leucorrhœa, and, for the last six months, profuse loss of blood at the menstrual periods.

Upon examining her, I arrived at the conclusion that the case was one of menstrual or recurrent pelvic inflammation, due, as we have heretofore supposed these cases to be, to some unknown influence. As the uterus was large and anteverted, and gave forth too free a menstrual flow, I supposed that endometrial fungosities probably existed, and cautiously scraped the cavity of the body with the wire curette. To my surprise, very few and small fungoid growths were removed. I then endeavored to give relief to some of the existing symptoms by an anteversion pessary, but this attempt resulted in absolute harm. Upon more careful examination, I now detected enlargement over the site of the ovaries extending from the uterus toward the iliac bones, and strongly suspected that this was one of the cases of coincident ovaritis and tubal dropsy which have been so well described by Mr. Tait; and, as by observation I became more and more convinced of the truth of this conclusion, I decided upon an explorative incision, to be followed by Tait's operation, if the diagnosis were found to be correct.

Upon making an incision in the median line and passing two fingers into one iliac fossa, I drew up an ovary about as large as an English walnut, distended by a multitude of small cysts and a Fallopian tube resembling closely in size an ordinary sausage, and giving to the touch very much the feel of a loop of intestine. Tube, ovary, and ovarian ligament were ligated by an aseptic banjo-string, and removed. The same condition was found to exist on the other side, and the same procedure was adopted. I would remark here that this and all the other operations to be related were performed under the strictest antiseptic measures, with the exception only of the use of the spray during the operation.

On the thirteenth day after operation the patient was sitting up in bed, and recovered completely without a bad symptom.

The time of one menstrual period has passed for this patient, but as yet no sanguineous discharge has occurred.

I here show the ovaries and Fallopian tubes. The latter have greatly diminished in size since removal, but even now equal in circumference an ordinary spermaceti candle.

CASE II.—Mrs. W., twenty-five years old, who has been married three years, and is the mother of one child, now eighteen months old, entered my service in the Woman's Hospital. Her menstrual periods began at the age of

seventeen, and before her marriage gave her no trouble whatever. Nine months after confinement she was taken with an attack of pelvic inflammation, which, from her description, seems to have been unquestionably one of slight cellulitis or peritonitis. Since the birth of her child she has never been well. She has always felt "dragged out," as she expresses it; suffered from constant pelvic pain, with occasional accessions of inflammation; has menstruated irregularly and painfully; and has suffered from constant leucorrhœa and difficulty of locomotion.

Upon examining her physically, I found partial laceration of cervix and perinæum to exist; discovered a mass the size of a hen's egg occupying the position of the left ovary; and detected such exquisite tenderness in the ovarian regions, and, in fact, all around the uterus, that I decided upon explorative incision, to be followed by Battey's or Tait's operation, if the case seemed to require one or other of these procedures.

Upon making an incision in the median line, the ovaries were found very slightly diseased, a few small cysts only existing within them, but the tubes were discovered to be distended by large accumulations of pus. Both the ovaries and tubes were removed, though with great difficulty, as firm adhesions bound the latter to the roof of the pelvis, which had to be broken by force.

I would here draw attention to the fact that, while Battey's operation may be performed without coincident removal of the tubes, the latter procedure can not be practiced without removal of the ovaries, for it would leave ovulation uninterfered with while removing the canal by which its products could reach the uterus.

This patient recovered without any remarkable rise of either pulse or temperature.

The ovaries and tubes are here exhibited in the phial marked Case II.

CASE III.—Miss F., aged twenty-two, entered my private hospital with the following history: She began to menstruate at fourteen, and from the first epoch has suffered from the most dreadful dysmenorrhœa. Until a year ago, pain was confined to menstrual periods, and was agonizing only for about thirty-six or forty-eight hours. For the last year it has been almost constant, lasting throughout the intermenstrual period, but greatly increasing at that time. The physician and friends described the menstrual suffering as being so very severe and exhausting that it was impossible for her to bear it unless she were kept semi-narcotized. At the last period, her physician, a very intelligent man, declared to me that for hours the pulse was scarcely perceptible at the wrist, and that he had feared a fatal result.

Upon physical examination, I found the ovaries tender, enlarged, and somewhat prolapsed, though not very markedly so. Of enlarged Fallopian tubes I could discover no traces. Some months previous to my examination of the case, Dr. T. A. Emmet examined it, and felt satisfied that he discovered evidences of pelvic inflammation.

In this case I had not the slightest hesitation in recommending Battey's, or, if found necessary, Tait's operation, and the friends of the patient very gladly consented to any

procedure, however dangerous it might be, which held out a prospect of relief to this suffering woman.

I removed both ovaries and tubes, for I found the former filled with small cysts, and the latter distended, their lining membranes inflamed and bathed with pus, which was not, however, confined within them so as to create dropsical enlargement. In place of this, that condition described by the older writers as profuent dropsy of the tubes existed. An ordinary lead pencil could readily be passed through them.

Unfortunately, the specimens from this case were destroyed.

The patient recovered without unfavorable symptoms, and, although the time for her next period is at hand, she is free from pain, and very much more comfortable than before operation. (This period was marked merely by a slight and painless bloody discharge.)

CASE IV.—Miss M., aged twenty-seven years, entered my private hospital, giving the following history: She began to menstruate at fourteen, and with severe pain. Until two years ago her case could have been classed with one of those very common ones of exceedingly severe dysmenorrhœa with which we so often meet, but at that time a sharp attack of pelvic peritonitis occurred, and since then she has been a most wretched invalid, having become greatly emaciated, suffering constantly, and being almost always confined to bed. During these two years she has had quite a number of attacks of pelvic peritonitis, which have uniformly occurred either just before or just after menstrual epochs. In September, soon after admission, one of these occurred, and the patient very nearly lost her life, the temperature, even under active repressing means, reaching 104.5° F. and the pulse 140. The great peculiarity of the attack was the excessive degree of pain by which it was accompanied.

Close observation of the rational signs of this case, combined with the physical signs, led me to the conclusion that it belonged to that class of cases with which I am dealing to-night, and the patient's friends, fully appreciating the more than ordinary dangers which attended upon the procedure in her case, gladly consented to the performance of Tait's operation, feeling, as did the patient herself, that death even would be preferable to the wretched existence which she was forced to endure.

The operation being decided upon, with the assistance of my colleague, Dr. P. F. Chambers, everything possible was done to increase the vital forces of our patient, but, after a month's treatment, we came to the conclusion that nothing could be accomplished by these efforts, for no sooner would we gain a little than a slight pelvic flurry would not only rob us of what we had obtained, but throw us backward. It was therefore decided to operate at once, as both Dr. Chambers and I felt satisfied that the patient, in her existing condition, could not live through the coming spring, and that the chances of operation would be better in the beginning of December than in that inclement season intervening between January and April, when the mortality of ovariectomy rolls up with such frightful rapidity in this climate.

In justice to Tait's operation, let me describe, as accurately and graphically as I can, the condition of this patient prior to operation. In emaciation, pallor, and depreciation of vital forces, she resembled closely a patient in the third stage of pulmonary consumption. Unable to walk even across the floor without assistance, she was constantly confined to bed with a temperature of 100°, a pulse of 115 to 120, a great deal of irritability of the stomach, with loathing of food and never-ending pelvic pain.

The operation was performed on the 11th of the present month. The ovaries were found not very much diseased, but having within their structure a number of small cysts. The Fallopian tubes, which are now shown, were in a condition of tubal dropsy from one quarter of an inch from the uterus to their fimbriated extremities, and throughout their whole extent were firmly bound down by false membranes, which had to be torn with considerable force. The operation was tedious and difficult, and at its conclusion no one who witnessed it could avoid making an unfavorable prognosis as to the result. Unfortunately, this was sustained, for in twenty-four hours one of those insidious attacks of peritonitis with low temperature and little pain—which we so often see develop after laparotomy performed upon very much enfeebled women—declared itself, and on the sixth day destroyed the patient's life. The tubes, which I now show, will be seen to be as large as ordinary sausages, to be filled with pus, and to be much twisted upon themselves.

This embodies all my experience in reference to this subject. As I have already said, I regret that the remote results of these operations are not yet at my disposal. All that I have aimed to do has been, as far as in me lies, to "hold up the hands" of an original and brilliant investigator, who, I sincerely believe, is working a most useful and prolific pathological vein.

If there be any here to-night who desire to exercise a spirit of criticism, believing that I have brought these cases before you in too jejune a form, let them do so upon our worthy president, who, a week ago, seized upon me with that relentless grip under the merciless nature of which so many of you have groaned in the past, and will, I trust, have an opportunity of doing still longer in the future, and insisted upon my making this preliminary report. Resistance was in vain, and I yielded.

A few words more in conclusion. Mr. Tait's immediate results from his oöphorectomy operations have been, like those of Keith, Wells, and several other European surgeons from ovariectomy, exceedingly gratifying. Out of seventy-five cases, his whole number in July last, he had only six deaths; out of the last sixty-one of these cases, only three; and out of thirty-five operations for pure chronic ovaritis, only one death.

In this country, alas! we have no such glorious figures to present. Dr. Battey's last report* was of fifteen cases, out of which he lost three; and out of my whole number of twenty-one cases I have lost four. The question as to why European statistics of laparotomy operations are better than those of our own country, the birthplace and the nursery of

this great surgical achievement, is equally interesting and important, and it behooves American operators to look to the matter most carefully. It is true that they may lull their misgivings to rest by listening to the kindly suggestions of a superior physique on the part of patients, a more advantageous climate, and the concentration of cases in the hands of experts on the other side of the Atlantic; but it is unlike the genius of our land to accept such placebos. Let us look the disagreeable truth frankly in the face, and recognize that, so far, at least, our European brethren are, in this field of surgery, for some unknown reason, ahead of us, and let us seek for and find that reason as soon as possible. The discrepancy which exists between our statistics to-day can not be met by argument; it must be abolished by results.

ALLOCHIRIA: ITS NATURE AND SEAT.*

BY WILLIAM A. HAMMOND, M. D.,

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On the 4th of November, 1882, I examined, in conjunction with Dr. L. A. Stimson, and at the request of the Corporation Counsel, a gentleman who, it was asserted, had received a serious injury of the spine. It appeared that on the 27th of February, 1881, he was driving from the city to his residence at South Yonkers. It was a dark, foggy, and rainy night, and he drove into a ditch which the ice and snow had formed entirely across the road. The front axle of his carriage was at once broken, and he was jerked forward against the dash-board. The horses started to run, and dragged the vehicle, with him in the constrained position mentioned, for the distance of about two hundred feet before they were stopped. He then, not thinking himself to be severely injured, procured another carriage, and drove on, in his wet clothes, through the rain to his home, which he reached at about half past two o'clock the following morning. In a day or two, symptoms indicating spinal trouble began to be developed. He some time afterward consulted a physician of this city, who diagnosticated Pott's disease. This opinion was confirmed by a surgeon to whom the physician took him, and a plaster jacket was applied. Amendment soon began, and, finding the jacket uncomfortable, he removed it; but, his symptoms recurring, it was replaced, and, in addition, an apparatus designed to keep the head from resting directly on the vertebral column was applied.

Several months elapsed, during which he was at times better and at others worse. Upon the whole, however, there was no decided improvement. The fact that he had brought an action for heavy damages against the city was the immediate cause of my examination.

So far as I could determine from the clinical history given me by the patient, I was satisfied that at no time had he suffered from injury of the vertebral column or subsequent Pott's disease. Certainly he exhibited no symptoms of that affection when I visited him, and the surgeon who applied the plaster jacket testified at the trial, a month subsequently, that he was cured. Neither Dr. L. A. Stimson,

* Agnew's "Surgery," vol. ii.

* Read before the New York Neurological Society, January 2, 1883.

nor Dr. Hamilton, nor Dr. Clymer could discover indications of its existence. It is quite evident that he did not have Pott's disease on the 4th of November, when I saw him, or at any subsequent period, and exceedingly probable that he had never had it.

He complained, however, of pain throughout the whole spine, and of excessive nervous irritability. He had had contractions of the muscles of the lower extremities, and on causing him to walk about the room it was evident that his limbs were stiff, and that he lifted his feet with difficulty. His gait was very different from that of a person suffering from locomotor ataxia. The feet were not raised from the ground with a jerk and put down with the two distinct movements so characteristic of locomotor ataxia, but were moved as if they were weighted down with some heavy substance. The knee-tendon reflex was greatly exaggerated on both sides.

Up to this time no experiments had been made with the view of testing the sensibility of the lower extremities. These were now denuded of their clothing, and the patient was told to shut his eyes. The touch of a finger, the scratch of a pin, or a deep puncture with the blade of a pen-knife was equally unfelt in the right leg. On making the like experiments on the left leg, he complained of pain when the knife was stuck into it, and automatically carried his hand to the place which he supposed I had punctured, but, instead of touching the spot injured, he indicated the exactly corresponding situation on the other leg. Repeated experiments led to like results. He had sensibility in the left leg, but referred all impressions to the other side. Dr. Stimson assisted in verifying these results.

I came to the conclusion that the patient was suffering from antero-lateral or lateral sclerosis, with the implication of the posterior horns of gray matter, and probably of the membranes of the cord to a slight extent.

With the diagnosis, however, I have little to do at present, my intention being to restrict what I have to say to the crossed sensibility which the patient exhibited. To this condition the name *allochiria* (*ἄλλος, χεῖρ*) has been given by Professor Obersteiner,* of Vienna, who was the first, so far as I know, to call special attention to the phenomenon, though it had been incidentally alluded to by Leyden, and one or two others, as an occasional symptom of locomotor ataxia. A case following severe cranial injury has also been reported by Ferrier.†

Of Obersteiner's four cases, two were of locomotor ataxia, one was hysterical, and the other was the result of severe and direct injury of the spine. Death ensued in this last case, and, on post-mortem examination, it was found that there had been inflammation of the first, second, and third lumbar vertebræ, meningitis, and extensive transverse inflammation of the cord. The posterior columns, for a considerable distance above the seat of the injury, were in a state of sclerosis, and the posterior horns of gray matter in portions of the cervical enlargement were "transversely divided by a peculiar, structureless, transparent mass, intensely

colored by carmine, and very similar to the mass which is found round the larger vessels in inflammatory processes in the cord."

I have quoted Obersteiner's own language because I think it is to such a lesion of the posterior horns of gray matter as he describes that the phenomenon of *allochiria* is to be ascribed. Neither he nor Ferrier offer any explanation of the mechanism of its production. On the contrary, they declare their inability to do so.

Certainly *allochiria* is not a usual symptom of sclerosis of the posterior columns of the spinal cord. I do not think it is ever met with in uncomplicated cases of this disease, nor do I think it is a possible condition in such instances. For the complete understanding of the subject, a few words relative to the anatomy and physiology of the cord are necessary.

The posterior tract of gray matter is probably the only channel by which sensory impressions reach the brain, the posterior columns having, in their normal condition, nothing whatever to do with the transmission of such impressions. But, before reaching the posterior horns, the posterior roots of the spinal nerves pass through the columns of Burdach, and, when these are the seat of inflammation, as they are in locomotor ataxia, disturbances of sensibility, such as hyperæsthesia, paræsthesia, and anæsthesia, are produced in the parts below by the pressure exerted upon these roots.

It is quite certain, as Brown-Séquard, Lockhart Clarke, Gerlach, and others claim, that there is an almost complete decussation of the sensory fibers within the gray matter—those from the right side of the body passing over to the left side of the cord, and *vice versa*. We are taught these facts, not only by experimental physiology, but also by the instruction we derive from the study of cases of disease or injury of the cord. Disregarding, as of no importance in the present connection, the fibers that do not decussate, we have in the accompanying diagram (Fig. 1) an explanation

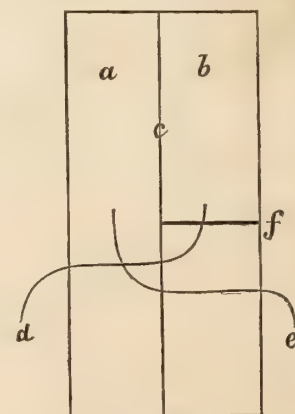


FIG. 1.

of the phenomena: *a*, the left posterior horn of gray matter; *b*, the right posterior horn; *c*, the commissure of gray fibers; *d*, sensory fibers coming from the left side of the body; *e*, sensory fibers coming from the right side. A lesion of the right posterior horn at *f* would produce anæsthesia of the left side of the body, and *vice versa*.

Now, in sclerosis of that portion of the posterior column called the column of Burdach the lesion is almost always

* "On *Allochiria*, a Peculiar Sensory Disorder," "Brain," July, 1881, p. 153.

† "Case of *Allochiria*," "Brain," October, 1882, p. 389.

* "Journal of Physiology," vol. ii, No. 2.

A SIMPLIFIED EVACUATOR FOR LITHOLAPAXY.

BY HENRY J. BIGELOW, M. D.,

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THE operation for the immediate removal of a calculus through a catheter, like many other surgical operations, can be accomplished more or less satisfactorily by any one of several instruments which much resemble each other. But it can be done better by employing a more perfect apparatus than those now generally in use. It has been said that "no new form of instrument is required by this operation," which is true so far as it implies that neither a lithotrite nor an evacuator is a new instrument. But it would be a mistake to infer that the operation could have been done with the instruments of the old lithotritry, and that they had needed no change to adapt them to what is now required of them, or that they can not be still further modified to advantage. The new operation can not be performed with the old instruments. It requires a larger evacuating catheter than that of Clover, through which the usual product of the lithotrite could not pass, except powder and sand, and that only in limited quantities, because the other detritus obstructed the entrance of the tube.* Though at first received with a good deal of distrust, the large catheter has been finally adopted by all the surgeons who have done the operation, and, in fact, can not be dispensed with. It should be combined with a thoroughly efficient aspirator. But no particular form of aspirator has so far met with general approval. Though better than it was, surgeons have none as yet which entirely satisfies all requirements of the operation and is at the same time compact and convenient to handle, and simple in construction. This part of the evacuator still needs improvement.

* Sir Henry Thompson says ("Diseases of the Urinary Organs," Philadelphia and London, 1882): "The evacuating catheter to be attached to the aspirator should be as large as the urethra will admit; usually No. 15 or 16 of the English scale [26 to 28½ French] may be used without any danger. Sometimes No. 17 or 18 [30 and 31 French] are admissible; but such sizes are quite unnecessary for small stones, and may produce mischief; hence they are only to be used where the presence of a large stone demands corresponding instruments." Or, it might be added, to expedite the operation, when the urethra is large and healthy. The size of the normal urethra, according to Otis, is, if we except the meatus, 32 of the French scale. Clover's evacuating catheter was 21. Those now in use range from 26 to 31. Care, however, and often special skill, may be required to introduce safely the largest sizes; 31 is very rarely needed, and the French sizes 28 and 29 are generally the most convenient. For a final washing or sounding without anæsthesia, when it is desirable to give the patient the least discomfort, even so small a caliber as 26 is sometimes useful. Through a catheter of this caliber Mr. Teevan has removed calculi weighing six or eight hundred grains, but such cases should be regarded as showing what is possible, rather than as establishing a rule of practice. Here I may add that, although no lithotrite compares in size with the larger tubes, it is yet true that long-bladed lithotrites, especially if they have the sharp extremity of the old instruments, are more difficult than tubes to introduce with safety. Although since 1878 my lithotrites have been made in three sizes, I have rarely had occasion to employ any other than the middle size.

The usual parts of an evacuator, not including the catheter, are these:

1. The exhaust, the best form of which is an elastic bulb.
2. A space or trap for air, at the upper part of the instrument.
3. A glass receiver at the lower part, to collect and show the *débris*.

In drawing out fragments from the bladder through the large catheter, one bulb or aspirator, if strong enough, is about as efficient as another. An aspirator of almost any shape, and having almost any combination of its parts, will do this. So will a mere elastic bulb attached directly to the catheter, without joints or receiver, if it is placed lower than the catheter, bent down like the body of a retort, so that the fragments can fall to the bottom of it; and the instrument will still work well if it has joints made, for economy, of cork or rubber instead of metal. But, however otherwise arranged, a satisfactory aspirator should have:

4. Some device, near the catheter, to act as a trap for *débris* and secure every fragment that has passed it.

The chief difference among evacuators, now, is in the certainty with which they retain the fragments they have aspirated. Any instrument will draw out the fragments, but few hold them securely, for the *débris* do not always fall into the glass receiver, nor do they always remain in it. On the contrary, they are easily carried back to the bladder. This defect in the action of the evacuator has received little attention from surgeons, although it is the only point connected with the instrument which offers any difficulty whatever. Until recently it has been remedied only by sacrificing simplicity in the apparatus.

In endeavoring to make a satisfactory evacuator for litholapaxy, many experiments have to be tried. It is quite possible that a perfectly satisfactory instrument might have been contrived some time ago, if it had been generally understood that an evacuator that works best with pieces of broken coal in a vessel of water will succeed best with the fragments in the bladder.* So also will the surgeon if he is otherwise well qualified. It is true that the living tissues are easily injured, but in other respects the experiment can be made sufficiently like the operation to give it great value. Aspirating *débris* from the bladder is not a question of pathology, but of operative surgery—of physics. And, in view of the fact that we fail, in some bladders, to discover a last fragment even by repeated washing, an evacuator should be so constructed that it will absolutely prevent a fragment that has once passed the catheter from returning to the bladder to become the nucleus of another calculus.

It is not altogether easy to meet this requirement, because the solid particles are usually borne back and forth with the current of water. In a common evacuator, they are carried wherever it goes, first from the bladder to the bulb, and then, when it is reversed, back to the bladder, a part only falling into the receiver at each aspiration. As we may fairly assume that a surgeon would not deliberately inject foreign bodies into a patient's bladder, there must be

* The specific gravity of hard coal is 1.575. That of a urate calculus is 1.540, and of a mulberry calculus, 1.262.

something wrong in a system which obliges him to do this, and makes it necessary to aspirate the same *débris* twenty times over in order to remove it. In short, the apparatus as commonly arranged is still a defective one, and needs some special contrivance to assist the action of gravity in securing the *débris*.

Surgeons have long felt this. The use of a long elastic tube connected with the catheter has been more than once criticised, and with some reason, on the ground that it might contain fragments which would be returned to the bladder. And, again, in order to shorten by an inch the route from the bladder, a less convenient stop-cock has been substituted for the usual one. But lithotritists should be fully aware of the fact that, whether there is an elastic tube or not, a tenfold greater quantity of fragments is generally driven back out of the bulb itself, and that the difficulty lies almost wholly in that part of the instrument. At each expansion *débris* are drawn from the bladder into the bulb, where they are delayed until, when it is compressed, they are injected back into the bladder. Only a part of them, sometimes only the larger half, the quantity varying in different instruments, settle into the glass receiver. This important fact, so little recognized, should not be accepted without demonstration.

An instrument which Sir Henry Thompson has lately abandoned (Fig. 1) can be made to demonstrate exactly how the currents act upon the fragments in an evacuator which is unprovided with a catheter-trap to prevent them from re-entering the catheter. It is here selected because the peculiar form of this instrument makes it easy to fit a glass tube to it so that we can see what takes place in the interior. Let a piece of glass tube an inch in diameter be inserted at the joint J J, between the bulb B and the catheter, to show what passes with the current from one to the other in either direction. If the end of the catheter be now placed in a suitable vessel of water containing fragments of coal of different sizes, while the bulb is alternately compressed and allowed to dilate, a continued stream of fragments will be seen rising from the vessel into the bulb, and then returning to the vessel as they inevitably do to the bladder. The back-flow of *débris* can be still better watched if a glass tube be also substituted for the catheter, as in the figure.

But there is another important fact illustrated by this instrument. Fragments do not always stay in a receiver after they have been deposited there. When the glass receiver R of this evacuator is half filled with fragments, a part of these are easily carried back into the bladder or into the vessel. They are first lifted up from the receiver into the bulb, and then driven out through the catheter. For, though the orifice of this glass receiver is small and protected by a special trap, the current and *débris* pass out of it as well as into it. It could not have been foreseen that fragments would escape from a receptacle apparently so well arranged. But it will be found that in any instrument, if the bulb or catheter directs the current into the glass receiver, whether directly or obliquely, fragments are easily carried out again.

And the general result is little better if, to avoid stir-

ring the fragments which lie in the receiver, the current is directed horizontally over the mouth of it instead of into it. Some of them then pass directly back and forth be-

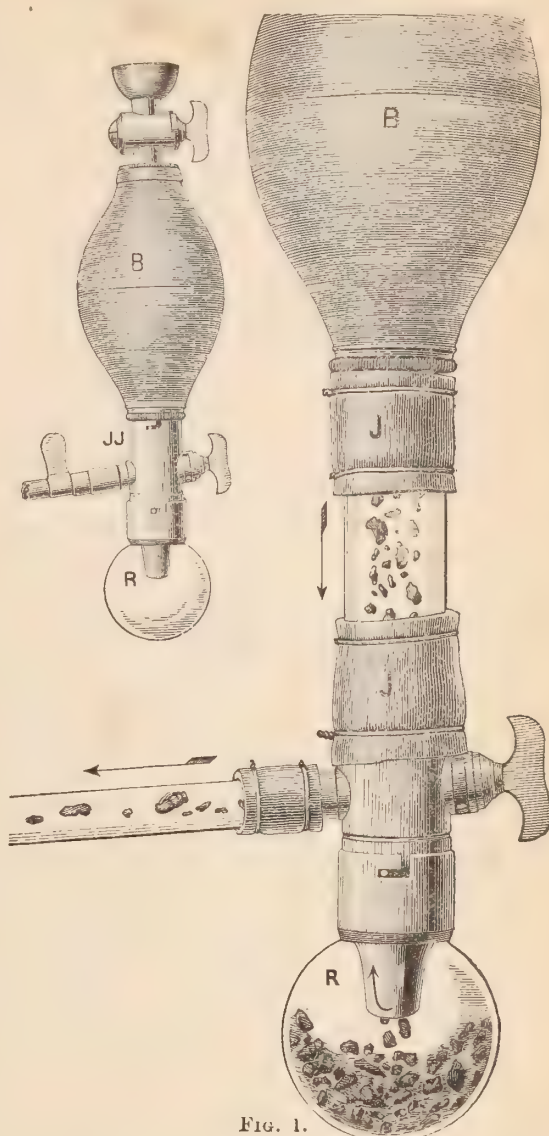


FIG. 1.

B, bulb; R, receiver; J J, a joint. These two figures, representing the same instrument, are intended to illustrate the fact that all evacuators return fragments to the bladder unless provided with some especial arrangement to retain them. The joint J J of the smaller figure is opened in the larger figure to receive a glass tube. Through this, fragments are seen as they are drawn into the bulb and expelled from it. The glass evacuating catheter shows them again, on their way to and from the bladder. The receiver R shows other fragments in the act of being lifted by the current and returned to the bladder.

tween the bladder and the bulb, over the receiver, without falling into it. This defect can be shown in an instrument recently employed by Sir Henry at the suggestion of Weiss & Co.,* where the stream from the catheter passes horizontally through an empty chamber on its way to the bulb. As the stream enters it, its velocity is so diminished that fragments fall to the bottom into the receiver, in greater number when the bulb is weak. Many fragments are as usual secured. But, in order to be wholly effectual, the chamber intended to retard and break up the current by its size would have to be inconveniently large, to give time to

* "Lancet," Jan. 7, 1882.

the floating *débris* entering on one side to settle into the receiver without passing farther. The principle here involved is quite different from that of the evacuator represented in the foregoing figure. This instrument is not unlike one formerly figured in the "*Lancet*,"* but the valve and strainer which there act as a trap have been omitted, and, in consequence, not a few fragments escape back to the bladder.

In Weiss's evacuator, again, some of the fragments which enter the bulb gather in the bottom of it, which is lower than its outlet, and where there is no receiver to collect them. The chief difficulty, however, is not that these fragments stray into the bulb, but that, for want of a trap, they are afterward liable to escape out of it, to the bladder.

This difficulty is not wholly obviated by placing a strainer across the mouth of the bulb to prevent the fragments from entering it, as has been done in some other evacuators. Let me mention in this connection the results of a former experiment. It might be supposed that if the passing fragments were arrested by a flat strainer placed across the current, whether at the orifice of the bulb or elsewhere, they would fall into a glass receiver placed directly below them. But this is not the case. Though a large part fall into it, others collect upon the strainer, and, unless the operator pauses after each aspiration till they have settled quietly into the receiver, they are liable to be carried back by the current, unless it is a very weak one. This has happened, in my own experience, whether the strainer was horizontal, vertical, or oblique. The fragments do not glance from it down into the receiver, but some of them cling to it until the current is reversed, and then go back. To make a strainer act as a trap, the fragments should pass freely beyond it and be intercepted only on their return. They will then be strained away from the bladder and not toward it. It is very desirable that the current should be unobstructed while the bulb is expanding, whether by a strainer or by curves and angles in the tubes. A simple flat strainer, placed anywhere across the whole current, retards it, especially if the urine is flocculent.

I find that the simplest expedient for collecting the fragments so that they will settle undisturbed in a glass receiver is, to admit them into the bulb and prevent their escape from it. After many experiments, I have found nothing more effectual for this purpose than a straight cylinder with perforated walls, which is practically a prolongation of the catheter into the bulb. The water, after bringing the fragments from the bladder, is strained as it returns. To the open end of this perforated cylinder a valve might be attached; either a ball-valve moving loosely,† which is less liable to obstruction than a valve with a hinge, or, still better, at the same point half an inch of cotton tube, which opens, allowing the fragments to pass up through it, and collapses with the reversed current, cutting off their retreat, the water, as it returns, passing back through the perforated walls. In operating with this arrangement I have found it to work perfectly, but a valve is not necessary, and the apparatus is more simple without it.‡

The evacuator described below is more simple in construction, and aspirates more perfectly than any I have used. It is shown in Fig. 2, and is a compact modification of one

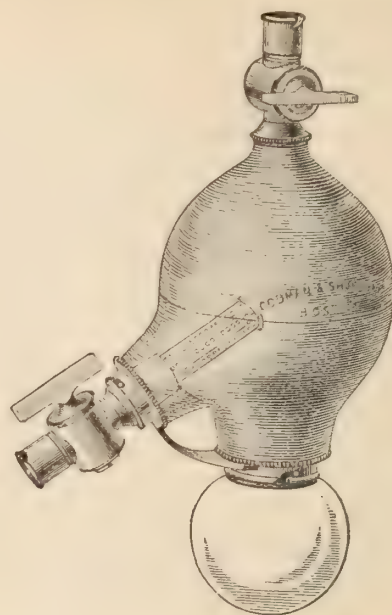


FIG. 2.

The writer's evacuator. It has an elastic bulb, glass receiver, and stop-cocks. Below, there is a metal brace between the collar of the glass receiver and that of the catheter, to steady the latter. Within the bulb, and open at the end, is a tube-strainer to prevent the return of *débris*. The bulb forms a concentric handle to the catheter.

formerly published in the "*Lancet*"* as "a simplified evacuator," but without the stand of that instrument, which is not essential, and has been omitted because operators seem to prefer to do without it.

The catheter is made to enter a spherical bulb obliquely upward, and is prolonged to the center of the cavity by the tube just referred to, open at its end, and perforated on its sides with numerous holes, which act as a strainer. The catheter, tube, and elastic bulb are in a straight line. This arrangement has the great advantage of *not deflecting the current* and thereby diminishing its force. During aspiration, the current bearing the *débris* is drawn straight from the bladder through the tube into the widest part of the bulb, and the fragments, spreading there, fall toward the receiver. But, when the bulb is compressed, the water returns mostly through the perforations in the side of the tube because their area is collectively larger than the opening at the end of it, and because they are nearer the point at which the water passes out of the bulb. By means of it opens to allow the water and the *débris* to pass through, works well enough as a substitute for the tube-strainer. The catheter then opens directly into the bulb, and the route is the shortest possible one. But the tube-strainer is much more simple, and the two inches which it adds to the length of the catheter are quite unimportant. In fact, the usual length of the catheter itself might be reduced two inches to shorten the route if desired. For strainers and strainer-traps, see the "*Lancet*," Sept. 24, 1881. As there described, they are used in pairs, one protecting the entrance of the bulb, while the other, furnished with a valve and placed at the head of the catheter, acts as a trap. The former, for reasons already given, is not always advantageous, but an effectual catheter-trap to arrest returning fragments is necessary.

* "*Lancet*," Sept. 24, 1881, Figs. 8 and 11.

* "*Lancet*," Sept. 24, 1881, Fig. 5. † *Ibid.*, Sept. 24, 1881.

‡ A hinged or other valve-strainer at the mouth of the catheter, if

this simple contrivance the water is strained, and *the return of fragments is practically prevented*. The tube-strainer can be removed, cleaned, and replaced in a moment, and this is an advantage when there is much mucus, coagulum, or shreddy material in the urine, by which the holes of any strainer may be partly obstructed. Even then this tube continues to work well, but it is better to pass a brush over it if mucus adheres to it. It can be examined as often as the receiver is emptied. After the water has once been changed, less mucus will be found.

The action of the perforated tube meets all requirements. In fact, if the catheter is prolonged into the bulb by a tube which has no perforations in its sides, the instrument will perform very fairly. Such a tube might be fastened permanently in the bulb, but the apparatus can be kept cleaner if there is a joint through which it can be removed. The cavity of the bulb can not be made too accessible.

This arrangement has several other advantages.

1. With the trap placed inside the bulb, the instrument is more compact, shorter, and more easily held, and, as the spherical bulb is here placed in a straight line with the catheter, it forms a concentric handle, which enables the surgeon to direct the catheter better than when this handle is placed above it, at an angle with it.

2. The glass receiver is here attached immediately below the bulb, and is easily seen. A glass cylinder shows fragments better than a globe, but is less capacious.

3. It is well known that the bulb in action, especially when placed above the catheter, at an angle with it, communicates an oscillation to it of which some patients complain. By a special device the catheter is here made so steady while the instrument is in use that a separate stand is not wanted. This consists of a brace uniting the metal collar of the catheter with that of the glass receiver, and so steadying it that *the catheter no longer feels the movement of the bulb*. The conical projection of the bulb at the point where the catheter is attached contributes to the same result.

4. An elastic hose (Fig. 3), which can be quickly connected with the top of the bulb, facilitates the operation. We can then, with a single compression of the bulb, get rid of any air or discolored water, and replace it with clean water without delay, and without uncoupling the catheter. Besides, no matter how the bulb may have been filled at first,* it is better to be able to vary the quantity of water at any moment afterward, and, although without a hose we can add water through a tunnel, we can not as easily withdraw it in the same way. We should be able to regulate the amount of water carefully, not only at the outset, according to the capacity of the particular bladder, but also during the operation. For example, it is sometimes desirable to draw it quickly away to allow for the muscular strain of retching, or to relieve the expulsive efforts of the bladder itself, which sometimes becomes very tense, and ejects water at the side of the catheter, even the large ones. More

* We can quickly fill the evacuator from a pitcher, if we invert the bulb and detach the receiver. The little remaining air can afterward escape through the hose or tunnel.

water is required at first, while fragments are numerous, to separate them and prevent their being wedged in entering the catheter. Later in the operation less water makes it



FIG. 3.

Apparatus belonging to the evacuator but not essential to it, viz., a tunnel and a hose, both of which fit on the top of the bulb; and an extra stop-cock for the evacuating catheter.

easier to find the last fragment, the minimum being reached when the wall of the bladder vibrates against the orifice of the catheter as the bulb expands, painfully if the patient is conscious. It is then important to add water again, just enough to prevent this obstruction and no more. In short, there is no doubt that we can evacuate better by trying a little more or less water from time to time during the operation, and that this can be done more accurately and more readily by means of a hose than in any other way. With one end attached to the bulb, the other can conveniently remain in a vessel placed between the patient's knees, or in any convenient position, or remain unattached till wanted.

The hose may be used or not. For those who prefer a tunnel (Fig. 3), one is furnished with the instrument; as also a second stop-cock (Fig. 3), which I find useful, if attached to the head of the catheter, in keeping the bed-clothes dry when the bulb is to be removed.

This evacuator is made by Codman & Shurtleff, Boston.

Clinical Reports.

BOSTON LYING-IN HOSPITAL.

Reported by J. FOSTER BUSH, M. D.

(SERVICE OF DR. WILLIAM L. RICHARDSON.)

ACUTE PUERPERAL NEPHRITIS.

Mrs. E., primipara, twenty-one years old, during the latter months of pregnancy had severe headaches, and was also depressed in spirits on account of the non-employment of her husband. No nausea or vomiting. For the last few weeks there was noticeable diminution of urine, and some swelling of the feet.

April 10th.—She scalded her feet and left leg, from which she suffered considerably, and on Wednesday night, April 12th, she complained of severe pain in her head, and of seeing peculiar objects. At about 1 A. M., April 13th, she had a convulsion; the

hands and arms were first rigidly fixed, with the fingers and thumbs clenched into the palms; the face soon became cyanotic, and there was frothing at the mouth, with protrusion of the swollen tongue. This was soon followed by convulsive spasms of the whole muscular system, with rolling up of the globes of the eyes, leaving only the sclerotic portion visible, and retraction of the muscles of the mouth producing a sardonic grin.

After an interval of fifteen or twenty minutes, during which she was partially conscious, another convulsion occurred, more severe than the previous one. A German midwife was then procured, who distinctly felt the foetal movements.

But notwithstanding her wonderful knowledge and the medicine she gave, of which vinegar appears to have been the principal ingredient, convulsions became more frequent, the patient in the intervals lying unconscious, with more or less groaning.

The dispensary physician of the district, Dr. C. P. Strong, who had been called in, was present during one of the convulsions, and at once ordered her removal to the Boston Lying-in Hospital.

The twelfth and last convulsion occurred at 1.30 p. m., April 13th, and at 3.30 p. m. she entered the hospital, in a comatose state, tongue and face swollen and cyanotic. There was no œdema of the legs or feet. Pulse 114 and weak. No urine had been passed for twelve hours. Two and a quarter ounces were drawn by a catheter. The urine was high-colored, and contained about one half of one per cent. of albumin, and numerous hyaline and a few granular casts. A vaginal examination showed that the cervix was not wholly taken up, the os admitting the tip of the finger, the head presenting with the occiput left anterior. The patient was etherized; manual dilatation and version were performed by Dr. W. L. Richardson with difficulty, owing to the low attachment of the placenta and tonic contraction of the uterus. Forty-eight minutes were occupied in the dilatation and extraction of the child, still-born, a male, weighing six pounds. There was considerable post-partum hæmorrhage. At 6.30 p. m. urine drawn was $\frac{7}{8}$ $\frac{3}{4}$; at 8.30, $\frac{1}{2}$ $\frac{3}{4}$; at 12, $1\frac{1}{2}$; after which urine was drawn every four hours, gradually increasing until it reached $6\frac{7}{8}$ $\frac{3}{4}$ in twenty-four hours, and then diminished to the normal amount.

At 8 p. m. one sixth grain nitrate of pilocarpine was given subcutaneously without effect. The same dose was repeated at nine, which produced considerable perspiration and salivation, Cream-tartar water and milk were given *ad libitum*. Poultices of flaxseed and mustard were applied over the kidneys every four hours.

April 14th.—At 1 a. m. one sixth grain nitrate of pilocarpine was given subcutaneously; there was some perspiration. At 3 a. m. she was very restless; large doses of bromide of potassium and chloral failed to quiet her; was then slightly etherized, after which she slept well. At 8 a. m. one sixth grain nitrate of pilocarpine was given, without effect, and the same dose was repeated at 10.30 a. m., with good result. Tr. digitalis, grt. x every four hours, was given. At 10.30 p. m. natural perspiration occurred, lasting five hours.

April 15th.—At 12.45 a. m., forty-eight hours after the first convulsion, she became conscious, smiled, and nodded her head when asked if she had slept well; drank a glass of milk, after which she relapsed into a semi-comatose state, becoming, however, fully conscious at intervals. Poultices omitted. The evening temperature, 103.1° F.; lochia normal; no abdominal tenderness. Intra-uterine carbolyzed injections were given, and continued twice daily.

April 16th.—Perspires freely. Examination of urine showed albumin trace; no casts. Burns doing well, being dressed with carbolyzed oil. The patient is fully conscious, and in good spirits.

She thinks her sickness is due to the burns, and still expects to be confined.

April 17th.—Tr. digitalis omitted. Examination of urine: albumin absent. Evening temperature, 105.4° F.; pulse, 130; lochia normal; slight abdominal tenderness. In addition to the intra-uterine injection, a sponge bath was given.

April 18th.—The morning temperature, 100.9° F.; evening, 100.2° F.

Cream-tartar water and the intra-uterine injections omitted.

The patient continued to improve, on the 23d sat up, and, while putting on her clothes, for the first time realized her condition.

She was discharged, well, April 28th.

Book Notices.

Hereditary Syphilitic Eruptions of the Skin in Early Life; or, Congenital Syphilo-Dermata. By JAMES STARTIN, Surgeon and Joint Lecturer to St. John's Hospital for Skin Diseases, etc. London: Henry Renshaw, 1882. [Pamphlet.]

In this pamphlet of nineteen pages the various eruptions of the skin from hereditary syphilis are grouped and described, with brief suggestions as to their diagnosis, etiology, treatment, dietetics, and complications, and a contrasted parallel of the stages and symptoms in acquired and inherited syphilis.

The motive of the writer in publishing this production is not apparent; it certainly adds nothing to our knowledge of the subject, while it has not the merit of presenting accepted facts in a clear and intelligible form. The style is slipshod and confused, often to such a degree that the reader is in doubt as to the precise meaning intended to be conveyed.

In the description of the different eruptions characteristic of congenital syphilis, we notice that the writer still clings to the terms "syphilitic eczema," "syphilitic psoriasis," "syphilitic herpes," etc.—a nomenclature which is condemned by its unphilosophical grouping of two diseases essentially distinct in their nature, and one which is fortunately obsolescent.

A few quotations will indicate the looseness and general indefiniteness of the language employed, as well as the unscientific character of the statements. The author says (page 7): "However severe the symptoms and the eruptions may prove, the child, as a rule, is born in perfect health, with a sound, clear skin." The absurdity of declaring that a child with syphilis "is born in perfect health" is evident. Again, he says: "It might be thought that an outbreak occurring a few days after birth would be more likely to recover than that which shows itself in a month or so; but such is not necessarily the case, nor is the child affected materially by the infection of either the mother or father, as might be thought." The information conveyed in this extremely lucid sentence is somewhat negated by the assertion, on the following page, that "in the great majority of instances the disease descends from the father, but this is not absolutely the rule."

Note cliniche ed anatomiche sulla lepra. Per CAMPANA ROBERTO, Professore nella Regia Università di Genova. Con due tavole. Milano: Fratelli Rechiedei, 1881. [Reprint.]

THE clinical observations of the author of this brochure relate to sixteen cases of lepra, which he has divided into four groups—embracing two cases of macular leprosy, five of tubercular leprosy, two of anæsthetic leprosy, and seven of mixed leprosy, in which latter the characteristics of the three forms generally recognized were more or less blended. He gives his

observations of four of these cases at some length and in detail, describing the symptomatology and the differential features of the several varieties of leprosy. In one of the cases he had an opportunity of making a post-mortem examination, and his anatomico-pathological investigations were conducted systematically and carefully, and are recorded with a minuteness of detail which leaves little to be desired in the way of completeness, as they extended to almost every organ and tissue of the body.

He enters somewhat exhaustively into the treatment of this affection, describing the drugs and methods of treatment which have been tried with more or less success by others. In this part of the work we find nothing essentially new, except possibly the employment of chrysarobin (chrysophanic acid) in the local treatment of certain cutaneous lesions of leprosy.

The histologico-pathological changes in the arteries, nerves, and other tissues, revealed by microscopic analysis, are admirably depicted in two fine lithographic plates.

BOOKS AND PAMPHLETS RECEIVED.

A Treatise on Fractures. By Lewis A. Stimson, B. A., M. D. Professor of Surgical Pathology in the Medical Faculty of the University of the City of New York, etc. With three hundred and sixty illustrations on wood. Philadelphia: Henry C. Lea's Son & Co., 1883. Pp. xvi-33 to 598, inclusive.

Mittheilungen aus der ophthalmiatriischen Klinik in Tübingen. Herausgegeben von Dr. Albrecht Nagel, ordentlichem Professor der Augenheilkunde und Vorstande der ophthalmiatriischen Klinik an der Universität Tübingen. Erster Band. Tübingen: H. Laupp, 1882. Pp. v-234-118-121. [From B. Westermann & Co. Price, \$4.40.]

Practische Beiträge zur Kinderheilkunde. II. Heft. Rachitis. Von Dr. Adolf Baginsky. Tübingen: H. Laupp, 1882. Pp. 118. [From B. Westermann & Co. Price, \$1.10.]

Pestilentia in Nummis. Geschichte der grossen Volkskrankheiten in numismatischen Documenten. Ein Beitrag zur Geschichte der Medicin und der Cultur. Von Dr. L. Pfeiffer und C. Ruland. Mit zwei Tafeln Abbildungen in Lichtdruck. Tübingen: H. Laupp, 1882. Pp. x-189. [From B. Westermann & Co. Price, \$2.20.]

Discussion sobre algunos puntos de la Historia del Lavado Gástrico, por O. Gourgues, Dujardin-Beaumetz, y J. Armangué. Folleto publicado por José Armangué, Barcelona. Pp. 16.

A Manual of Histology. Edited and prepared by Thomas E. Satterthwaite, M. D., Professor of Histological and Pathological Anatomy in the New York Post-Graduate Medical College, etc., in association with Drs. Thomas Dwight, J. Collins Warren, William F. Whitney, Clarence J. Blake, and C. H. Williams, of Boston; Dr. J. Henry C. Simes, of Philadelphia; Dr. Benjamin F. Westbrook, of Brooklyn; and Drs. Edmund C. Wendt, Abraham Mayer, R. W. Amidon, A. R. Robinson, W. R. Birdsall, D. Bryson Delavan, C. L. Dana, and W. H. Porter, of New York. Second edition, enlarged and revised, containing two hundred and two illustrations, with an appendix. New York: William Wood & Co., 1882. Pp. xvi-490.

Nos Rapports avec la Commission de Controle des Expériences relatives au Microbe de la Pleuro-pneumonie Contagieuse. Par G. Bruylants et G. Verriest, Professeurs à l'Université de Louvain. Louvain: Charles Peeters. Pp. 45.

A Compound Dermoid Cyst of the Orbit. A paper read before the Ohio State Medical Society, June 14, 1882. By Henry G. Cornwell, M. D., Columbus, Ohio. Pp. 7.

Proceedings of the American Society of Microscopists. Fifth annual meeting, held at Elmira, N. Y., August 15 to 18, 1882. Buffalo, 1882. Pp. 292-vii. [May be had of George E. Fell, M. D., Buffalo; price, \$1.50.]

The Transactions of the Medico-Chirurgical Society of Edinburgh. Vol. I. Session, 1881-'82. Edinburgh: Oliver and Boyd, 1882. Pp. xvi-188.

Treasury Department. Marine Hospital Service. Preliminary Report on the Yellow-Fever Epidemic of 1882 in the State of Texas. Pp. 63.

Seventh Report of the State Board of Health of California, from July 1, 1880, to December 1, 1881. Sacramento, 1882. Pp. 128. [From F. W. Hatch, M. D., Secretary.]

Report on Small-pox in California, 1880 and 1881. By F. W. Hatch, A. M., M. D. Sacramento, 1882. [Extract from the Report of the Permanent Secretary of the State Board of Health.]

The Seaside Health Resorts of California. By F. W. Hatch, A. M., M. D. Sacramento, 1882. [Pamphlet.]

Quatrième Congrès International d'Hygiène et de Démographie, Genève, du 4 au 9 Septembre, 1882. Rapport sur le Programme du Concours sur la Prévention de la Cécité. Par le Dr. G. Haltenhoff, Privat-Docent d'Ophthalmologie à l'Université de Genève. Genève: H. Georg, 1882. Pp. 12.

Reduplication, or Doubling, of the Cardiac Sounds. By James Barr, M. D., L. R. C. S. Edin., Physician, Stanley Hospital, Liverpool, etc. Liverpool, 1882. [Reprinted from the "Liverpool Medico-Chirurgical Journal."]

The Relative Mortality after Amputations of Large and Small Hospitals, and the Influence of the Antiseptic (Listerian) System upon such Mortality. By Henry C. Burdett, Fellow of the Statistical Society, etc. London: J. & A. Churchill, 1882. Pp. 41. [Reprint from the "Journal of the Statistical Society."]

Contributions to the Vital Statistics of Australia. By James Jamieson, M. D., Lecturer on Obstetrics and Diseases of Women and Children, Melbourne University. I. On the Frequency of Abortion in Victoria. II. Puerperal Fever, its Prevalence and Pathological Affinities. III. Infant Mortality. [Reprint from the "Australasian Medical Gazette."] Sydney: L. Bruck, 1882. Pp. 30.

Some Thoughts on Phthisis, with special reference to the Value of Laryngeal Symptoms in Diagnosis. By M. F. Coomes, M. D., Louisville, Ky. Pp. 7. [Reprint from the "Archives of Laryngology."]

Analysis of Eight Thousand Cases of Skin Disease. By L. Duncan Bulkley, M. D., etc. Pp. 30. [Reprint from the "Archives of Dermatology."]

Menstrual Amblyopia. By M. F. Coomes, M. D. Pp. 4. [Reprint from the "Medical Herald."]

The Physician's Pocket Day-Book. Designed by C. Henri Leonard, M. A., M. D., etc. Detroit: C. Henri Leonard.

DRAWING ON GELATIN WITH THE CAMERA LUCIDA.—M. Créteur uses a metallic point for drawing objects with a camera lucida, the drawing being made not on paper, but on a sheet of gelatin laid on a dark ground. The shining point is always visible, and is claimed to provide a remedy for the indistinctness of the point of the pencil, which is the chief difficulty experienced in drawing with the camera by the ordinary method. The drawing can also be readily transferred to stone. It is questionable whether the advantage gained through the greater distinctness of the drawing point is not more than counterbalanced by the disadvantage of not being able to draw on paper. As the particular benefit claimed appears to rest upon the shining point, that could be obtained without great difficulty with an ordinary pencil. *Royal Microscopical Journal.*

WET-PACKING IN ASYLUMS.—A remedy which may be beneficial when prudently and skillfully employed, but which might do harm if indiscriminately used, and which might in unworthy hands degenerate into an instrument of punishment.—*British Medical Journal.*

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DERMATOLOGY IN AMERICA.

It is altogether likely that for many years to come the luster of the late Professor Hebra's fame as the practical founder of modern dermatology will not be dimmed appreciably by the achievements of any other one man. Nor are we unmindful of the steady and effective work that has been accomplished by Sir Erasmus Wilson. But, however prominent an individual may stand out, a less glittering, but on the whole a more substantial, advance in science usually has to be brought about by the concerted labors of the great throng of lesser note. Cutaneous medicine is no exception to this rule; it takes a step forward here, and another there, and its progress, thus insensibly worked out, is among the most solid of the improvements with which the medicine of the present day is to be credited.

Our country may justly claim to have done its full share, and to be doing it still, in this work. It is no more than their due, and a fitting recognition of their painstaking efforts, that the attention of the profession should be called, although not for the first time, to something of what American dermatologists have done. The late Dr. Henry D. Bulkley gave many years of what time he could snatch from the daily duties of a family practitioner to the study of diseases of the skin, and left behind him an invaluable collection of clinical records—data that have since been turned to good account. Dr. Bulkley also gave lectures on dermatology from time to time, and brought out a translation of Cazenave's book. The crowning work of his life, however, was the part he took in founding the New York Dermatological Society, a few years before his death.

This society has flourished from the outset, and its monthly meetings have always brought together a goodly assemblage of men earnest in their devotion to dermatology. But little of its work has taken the form of set essays, and it has steadfastly steered clear of the whirlpool of debates on classification. For the most part, its meetings have been given up to the observation and study of actual cases of skin diseases, and it is doubtful if anywhere else in the world can so many rare cases, puzzling cases, of diseases of the skin be seen in the course of a year as at these meetings.

The American Dermatological Association, although laboring under the disadvantage of meeting but once a year, and necessarily dealing more with formal papers than with clinical work, has yet a most creditable record, as may be learned from its volumes of transactions. Although a younger organization than the New York society, it has accomplished a great deal, mainly in the opportunity it has given for dermatologists from various parts of the country to profit by that wholesome attrition that accompanies the occasional concert of action by men

who are to a great extent strangers each to the other's peculiarities of mind and training.

Shortly after the formation of the New York Dermatological Society, "The American Journal of Syphilography and Dermatology" was established, and its quarterly publication was kept up for four years, with credit to the editor and with profit to the branches of medicine to which it was devoted. At about the time its publication ceased, the issue of "The Archives of Dermatology," another quarterly, was begun. That journal has contained some of the most notable contributions to dermatological literature that have appeared since its establishment. With the number for October, 1882, without having shown the slightest sign of decadence, its existence ended, simultaneously with the appearance of a new monthly journal, "The Journal of Cutaneous and Venereal Diseases," a handsome and promising journal, and one which already gives good grounds, in the few numbers that have been issued, for the hope that it may long continue the good work done by its predecessors. Thus at no time during the past twelve years has dermatology been without its special literary repository in this country, to say nothing of the admirable text-books, colored plates, and photographic portraits that have been produced by American authors.

The didactic and clinical teaching of dermatology has come to be a regular feature in the courses given at our leading colleges, and the interest shown in various private courses of instruction gives evidence that it is not alone among our specialists that the study of diseases of the skin is duly followed, but that the field those diseases afford for general pathological investigation—being, so to speak, an epitome of general pathology—is appreciated by a large proportion of the profession as a body.

Although many of our best-known dermatologists doubtless caught their first enthusiasm in Vienna, they have no more yielded themselves up to the peculiar etiology taught by Hebra than to the opposing views that have been enunciated so persistently and so ably in France. Neither the one nor the other of these disturbing influences has dazzled them, and we may well question if it is not to this independence of thought, this unprejudiced study of the natural history of skin diseases, that we owe the present satisfactory and promising state of dermatology in this country.

THE LATE SIR THOMAS WATSON.

It is safe to say that no physician of modern times has won the hearts of so many of his contemporaries as the revered nonagenarian whose recent decease gives occasion for these remarks. Others have been more admired for their direct contributions to the advancement of our art, but the homage they have received has been that which springs from the intellect rather than from the feelings. Watson's name can not be set down among those of the few men of our period to whom medicine is materially indebted for having aided its progress toward that perfection which we all hope it will ultimately attain to. He made no discovery; he maintained no new theory or practice;

he settled no disputed point. Yet, had he done all these things, and been other than what he was, no such tender words would have been written of him as appeared in our London contemporaries during his last illness. As it grew painfully certain, from week to week, that the end of his life was close at hand, more and more touching were the bulletins. But it was not that the shadow of impending death heightened the love borne him—it needed not that hallowing influence; for, twenty years ago or more, when, although then ripe in years, he was still actively at work, a leniency was shown him that, in this critical age, would not have been accorded to a man for whom admiration rather than esteem had before been felt, on the occasion of his accounting for the steady abatement of the general mortality, notwithstanding the disuse of the lancet, that had figured so prominently in his own practice and teaching, by suggesting that diseases had changed their character. Men saw the weakness of the argument, but it was the honored Watson who had spoken, and captiousness was silenced.

It was not because he was a baronet that his name was held in such reverence, for to that honor he did not attain until he was past seventy-four years of age; it was not for his having been President of the Royal College of Physicians; it was not for the distinction of his having been chosen one of Her Majesty's physicians in ordinary—all these were but coincident results of the career that had already endeared him to every English-speaking practitioner and student of medicine. It was as the lecturer at King's College that men knew him far and wide. But few men in Great Britain or in America can have gone through the medical curriculum at any time during the last half-century without reading his matchless lectures on the "Practice of Physic," the charm of which lay not alone in their exquisite style, but in the witness that every page bore of their author's practical acumen, and in the graphic pictures of disease that could not but be taken in and remembered. It was a work that never exacted any exertion on the reader's part, and yet never failed to command his respectful attention. None but a great man can write such a book, and that fact was recognized intuitively by every reader. It does not reflect the medicine of the present day, but none the less is it still a power, and none the less will its sway be acknowledged so long as a masterly portrayal of the clinical aspects of disease is appreciated. Sir Thomas Watson, although no longer in the flesh, still lives in its pages, lighting up the dry and formal records of medicine, and teaching us anew the lesson of a long and graceful career.

THE DEARTH OF ANATOMICAL MATERIAL IN PHILADELPHIA.

It is to be hoped that the community which lately unhorsed Buchanan, and broke up his revolting trade in medical diplomas, will lose no time in putting an end to its present treatment of its physicians—that, namely, of requiring them to make bricks without straw; in other words, holding them responsible for ignorance of their art, and yet withholding the only means whereby they may acquire anything approaching an

adequate knowledge of the very corner-stone of that art, the anatomy of the human body.

How many of the mature practitioners who earned their degree in Philadelphia, and who are now scattered over the length and breadth of the land, can patiently mingle with their recollections of alma mater the thought that now, in the city of Horner, of Mütter, of Pancoast, and of Leidy, the demonstrator of anatomy in one of her honored colleges languishes in the grasp of the law, charged with having connived at a systematic course of ruffianly desecration of the sepulchre—all for the want of that decent and seemly provision that every civilized government recognizes the necessity of making for the practical study of anatomy? And yet that is the actual state of things.

Truly, the glory of Philadelphia will have paled when that old-time center of medical teaching shall not only see the accustomed throng of pilgrims diverted to other regions, but shall also be forced to send her own sons beyond her borders for instruction; but that time will tread close upon any lasting obstacle in the way of dissection. Whatever else may be glossed over, no apology will be taken in extenuation of any shortcoming in the means for teaching anatomy.

It is easy to pour obloquy upon the demonstrator in question, to argue that he should not have yielded before what he doubtless considered the inexorable force of circumstances. That is quite true, and his conduct seems wholly indefensible, provided the charges against him are substantiated; but it does not shift the responsibility from the shoulders of those whose business it was to see that no such crushing temptation was thrown in his way. Medicine has nothing to gain, but everything to lose, by covering up unlawful and abhorrent acts committed in her name; but, having resolutely refrained from any such course of action, it can, with all the more vantage, call upon the legislative power to remedy the evil that this man's conduct might, but for his detection, have enabled him to evade in the future as it doubtless has in the past.

The astonishing phase of the matter is, that this thing has occurred at such a late date. We can scarcely suppose that the public provision for the supply of anatomical material at present is grossly different from what it has been in the past, nor can we entertain the idea that a systematic course of grave-robbing has heretofore been followed in Philadelphia, lasting through all the years that that city has been prominent in medical teaching, and only now coming to light. One explanation is offered, indeed, embodying a new feature in "bossism," to the effect that a coroner, who is also interested in a private school of anatomy, makes such use of his power in the disposal of the dead as to hamper the great medical schools, while his own institution suffers no want. That a member of the profession should thus be guilty of strangling the author of his official being, is too monstrous to be credited without more substantial proof than has yet come to light. Whatever may turn out to be the true reason for the humiliating state of things that now exists, we feel confident that a remedy will soon be enforced, for Philadelphia can not afford to let her prestige in medical teaching go by default.

THE PROPOSED NEW FRENCH DEGREE.

THE project being under consideration in France of creating a grade superior to that of doctor of medicine—that, namely, of doctor of the medical sciences (*docteur ès sciences médicales*)—the Minister of Public Instruction has issued a circular of inquiry to the rectors of the various colleges, asking for their views as to the probable utility of the measure, and as to the proper requirements to be exacted of candidates for the proposed new degree.

Some uncertainty seems to be felt among the profession in France as to what effect the adoption of the scheme may have upon the status of practitioners. It is hinted that the professors and the *agrégés* may find it the means of abridging the lofty height to which they now tower above the rank and file, since a sort of gradation may be established between the two by the creation of an intermediate dignity.

It is feared, too, that abuse may readily creep in by reason of the degree being conferred upon some whose only claim to any such stamp of distinction will be found to have been based on work of no noteworthy merit. Moreover, it is obvious that in the general run of instances the achievement of that amount of eminence, due to individual contributions to the advancement of medicine, that should really entitle one to so marked a recognition as is implied in a degree of this sort, falls to the lot of workers in the special branches of medicine, more especially the elementary branches. Now, suppose a man to have reached this pitch of eminence, in physiology, for example; the absurdity of dubbing him doctor of the medical sciences on that account is extreme, for in regard to much that goes to make up the sum of what we call the medical sciences he is quite likely to be behind the ordinary practitioner.

It is evident that only the general practitioner, or at least the student of general medicine, can attain to such a height of excellence in the whole range of the medical sciences as to warrant the title in question being conferred upon him; and how many such men are to be met with in a generation? The degree would be given to such a man, if at all, in conformity with the general voice of the profession, tacitly if not avowedly. Trousseau might, perhaps, have won such a suffrage, but it would be given to very few, we fancy, to secure that amount of homage from their associates, short of their practical superannuation, at all events. The minister's circular, indeed, takes account of tests of far less weight than any that we have mentioned, even entertaining the idea that it may be thought wise to confer the degree on all who have been hospital internes. It can scarcely be doubted that such a paltry consideration as that would utterly defeat the intention that seems to underlie the project.

The essential idea of the scheme, that of setting the seal of public recognition on a career of more than ordinary merit, seems to us a good one, but the proposed title does not strike us as answering the purpose. Perhaps it would be better to make the doctorate the higher grade, giving a lesser degree at graduation from a medical school—that of bachelor of medicine, for example.

THE NEW SURGEON-GENERAL OF THE STATE.

IN selecting Dr. Joseph D. Bryant, Professor of Anatomy in the Bellevue Hospital Medical College, for the position of Surgeon-General on his staff, Governor Cleveland gives an earnest that, in so far as his medical appointments may be concerned, care is likely to be taken that a just discrimination as to professional standing and fitness shall not fail to be exercised. In that respect his course stands out in marked contrast with that of his immediate predecessor.

It is so seldom that the profession have reason to feel satisfied with political appointments from their ranks that we feel inclined to emphasize the expression of our gratification at the judicious choice that has been made in this instance. Dr. Bryant's position as an attractive and successful teacher of anatomy, and as an esteemed practitioner, impels us to say that the Governor honors not so much the appointee as the office. Short of an outbreak of war—which God forbid—the Surgeon-General is, indeed, not likely to have forced upon him any actual duties more trying than that of a dignified bearing, yet we trust that the Governor will not hesitate to require his action, in an advisory capacity, not only in regard to medical appointments in the National Guard, but also with reference to such other selections of medical officials as may have to be made during his incumbency. In no way could the interests of the State be better served by the office.

Proceedings of Societies.

NEW YORK SURGICAL SOCIETY.

A STATED meeting was held November 28, 1882, Dr. T. M. MARKOE, President, in the chair.

Dr. J. C. HUTCHISON read a paper on

SUBCUTANEOUS OSTEOTOMY BELOW THE TROCHANTER.—Dr. H. B. SANDS referred to a case, occurring in an adult, in which he performed Adams's operation. The deformity was ankylosis at an angle of 110°, the result of articular rheumatism. He divided the neck of the femur, and the wound healed by adhesion under a simple dressing. The man was kept in bed for six weeks, with the view to obtaining bony ankylosis in a straight position; but a false joint formed, and when he left the hospital, two months after the operation, the limb was shortened one fourth of an inch. A year and a half after the operation the limb was shortened three fourths of an inch, and still there was a movable joint, but the deformity was entirely relieved. As in Dr. Hutchison's case, it was necessary to divide some of the tendons in order to bring the limb into the proper position. The final result was that the patient was able, without a cane, to walk with only a slight limp, and with a cane no limp could be detected.

Dr. C. T. POORE remarked that he had not seen reported cases in which motion remained after section high up, except in Dr. Sands's and Dr. Sayre's cases, and one published by Dr. David L. Rogers, in 1830, in which motion existed three and a half years after the operation. Barwell, of London, had reported a case in which he performed double section high up, adopting Gant's method, and the patient died on the forty-seventh day from bed-sores. The case was one of ankylosis from double strumous hip-joint disease. He thought that osteotomy, as performed by any of the usual methods, could hardly be called subcutaneous.

Dr. HUTCHISON thought that Gant's operation was subcu-

taneous, as the skin was drawn well to one side before the puncture was made.

Dr. A. C. Post had performed osteotomy at the upper part of the femur in two cases. In the first, performed many years ago at the New York Hospital, he divided the bone just below the lesser trochanter by an open section. The limb became gangrenous, and the patient died. At the autopsy it was found that the great vessels had become caught over the upper fragment of bone, and in that manner the circulation in the limb had been destroyed.

The other case was one in which there had been double morbus coxarius. On a former occasion he had excised the head of the femur upon one side. The head of the femur upon the opposite side subsequently became diseased, and ankylosis occurred while extension was being used. As there was profuse deep-seated suppuration around the bone, Dr. Post commenced the operation with the view of excising the head of the femur. But finding that the head was inseparably connected with the acetabulum, he divided the bone with a saw just below the trochanter minor; and, as the limb was considerably longer than its fellow, having divided the bone, he removed a piece, so as to make the two extremities nearly of the same length. Ankylosis took place after the operation; the limb was in the straight position, and was useful.

Dr. HUTCHISON said that one of the most interesting cases he had met with, among those reported, was Mr. Lund's, of Manchester. There was ankylosis at both hip joints, the result of rheumatic arthritis. The patient was unable to sit; could only stand or lie down. Mr. Lund performed Adams's operation, and succeeded in getting false joints, after which the patient was able to sit and walk very comfortably. The result was attributed largely to a suggestion made by Mr. Adams—that the patient draw up the limb, while the weight and pulley were attached, several times a day, for the purpose of preventing union of the bone.

Dr. GEORGE A. PETERS directed attention to another method of correcting the deformity—namely, fracture of the bone, which he had regarded as safer than dividing the bone through an open wound. One difficulty in applying the method had been to produce the fracture at the exact point desired. This he thought had been overcome by the osteoclast devised by Dr. Fayette Taylor, a complete description of which had been published in the "New York Medical Journal." In the case reported, Dr. Taylor fractured the femur just below the trochanter, straightened the limb, and Dr. Peters took charge of the case during its progress. The result was complete union, with the limb in good position. At the time the operation was performed, it seemed to him to be a much safer procedure than section of the bone, and he should be inclined to adopt it.

Dr. C. K. BRIDGON referred to the case of a girl, eighteen years of age, who entered the Presbyterian Hospital with ankylosis at the hip joint, and ankylosis of the right hand. As he recollected, the heel was five inches from the floor. While making an examination under ether, he accidentally fractured the bone about four inches below the trochanter minor. The limb was placed in the straight position, a fixed apparatus was applied, and union took place. The result was very good. The shortening was very much diminished.

Dr. SANDS said he was unable fully to understand how any instrument could determine the point of fracture within half an inch. If it was desired to fracture the bone where it was thickened, as the result of inflammation, he should fear that it would give way at its weakest point. In his case the bone was excessively firm, and twenty-five minutes were occupied in dividing it. He was quite certain that the application of a force sufficient to cause fracture would have broken it at some lower point.

With regard to the relative safety of osteotomy and fracture, he doubted if there had been sufficient experience to enable us to compare the two operations. Certainly osteotomy had been remarkably successful; and he should apprehend that if force enough was applied to cause fracture, the large blood-vessels might occasionally be injured.

Dr. PETERS said that when Dr. Taylor first proposed the operation he objected to it for the same reasons which had just been given by Dr. Sands. But when he saw the apparatus, and especially after seeing it used, he believed that there was an almost absolute certainty that the bone would not be fractured except at the exact point selected.

The PRESIDENT suggested that fracture at a precise point, although he had not tried it, in the class of cases under consideration, might be secured by first using Brainard's drills, and afterward the osteoclast. He had used the drills in several cases of vicious union with satisfactory results.

Another suggestion was with reference to the accident which occurred in Dr. Post's case. Perhaps the danger had been somewhat overlooked of the sharp edge of bone wounding or abrading important vessels. This accident had occurred to him, and Dr. Peters would recall the case. After dividing the bone in the middle position of the femur, with great difficulty, with a chisel, in a case in which the bone exhibited a deformity nearly at a right angle after necrosis, he had the misfortune to rupture the femoral artery in making extension for the purpose of bringing the fragments of bone into proper position. The result was that the limb was destroyed, although the patient's life was saved by amputation high up. On examination of the limb after amputation, it was found that the artery had become attached to the posterior surface of the bone as the result of long-continued inflammation in connection with the necrosis, and, of course, when the bone was straightened, the artery was torn across. He thought it was one of the points to be borne in mind in all operative procedures in this class of cases.

LITHOLAPAXY THROUGH THE PERINÆUM.—Dr. GEORGE A. PETERS reported a case as follows: On the 6th of November he removed a stone from the bladder of a boy ten years of age, who had suffered from symptoms of vesical calculus for five years. On examining the bladder with a Thompson's searcher, a stone was readily detected, and it was estimated to be of large size, hard and rough. The patient was prepared for the operation, and, after he was placed upon the table, bimanual examination, with one finger in the rectum, and pressure made above the pubes, detected a stone in the bladder which was then estimated to be over an inch in length. Appreciating the fact that he had to deal with a large calculus, Dr. Peters determined to perform the median operation, with some modification, and, through the opening thus made in the urethra, to crush and remove the fragments. The modification consisted in making the incision through the skin, and to some distance through the soft parts, and then introducing the knife in the usual manner, touching the groove in the staff and dividing the urethra. A pair of forceps was then introduced into the bladder, with the expectation of being able to crush the stone, but it was found to be at least one and three quarter inches in diameter, and the instrument too weak to break it. Considerable difficulty was then experienced in removing the forceps from the stone, as the bladder was empty and had contracted firmly. The forceps being removed, a short lithotrite—which had been made for him by Weiss, of London, for crushing stone in the female bladder—was introduced; but, after the calculus was grasped, it proved to be so large that the instrument could not be locked.

Bigelow's large lithotrite was then introduced, the stone was seized and crushed several times, several of the large fragments were removed with the forceps, and the operation was completed

with the scoop, passing it over every portion of the bladder. On introducing the finger, he found that the irritation produced by the operation had caused hour-glass contraction, so that there were some fragments shut up in the upper part of the bladder. Finally the bladder was emptied completely. The fragments and detritus collected weighed four hundred and seventy grains. During the subsequent history of the case nothing of special importance occurred, except high temperature—105° F. during a part of the first twenty-four hours. But that readily yielded, and on the sixth day the boy began to pass water through the penis, and on the twelfth day the urine was passed entirely in the normal manner. From that date the case had progressed favorably.

Dr. Peters suggested that, should he again be called upon to operate in a similar case—a young person's bladder with a large stone—he should perform litholapaxy through the perinæum in the following manner: Make an incision in the perinæum, enter the urethra a little farther forward than in ordinary median lithotomy, and by an incision only large enough to admit a lithotrite, and through that opening crush the stone and extract the fragments, as in ordinary rapid lithotripsy with Bigelow's apparatus.

In connection with the report of this case Dr. Peters exhibited

AN APPARATUS FOR SECURING GOOD POSITION IN ALL OPERATIONS ON THE PERINÆUM, THE BLADDER, THE VAGINA, OR THE RECTUM.—It had been brought from London by Dr. T. A. Emmet, and consisted of two padded rings or bands to encircle the legs just below the knees. To one ring was attached a steel rod, to the other a barrel which received the rod. The rod could be secured at any point by means of a thumb-screw passing through the wall of the barrel, and thus permitted any degree of extension required (consequently, separation of the knees, and placing the perinæum on the stretch). To the inside of one ring was attached a strap which was to pass around the patient's neck and be held fast with a buckle at the inner side of the opposite ring. With this strap the elevation of the limbs could be regulated. [A more complete description, with illustration, can be found in the "Medical Record" for December 9, 1882.]

CANCER OF THE THYROID BODY.—Dr. A. G. GERSTER presented a specimen removed last August from a patient sixty-two years of age. It had the following history: A woman, very fleshy, had carried a goitre for several years. During the last five years she had suffered from periodical attacks of dyspnoea, which passed off without special treatment. For about four months before he saw the patient the dyspnoea had been almost constant, and her general symptoms had increased in severity to an alarming extent. On examination, he found in the median line of the neck a tumor about the size of an orange, and hard. It moved up and down with deglutition. The dyspnoea was so marked that the wheezing inspirations of the patient could be heard in the second and third rooms distant. Her face and lips were slightly cyanosed, and she was obliged to maintain the upright position. There was evidence of fatty heart, and of a certain amount of pulmonary emphysema, apparently induced by the tumor. Several methods of treatment had been employed before he saw the case, and last some sort of injections into the tumor by an irregular practitioner. From that date the alarming condition took its origin. The tumor was attached to the anterior surface of the trachea, and it was evident that tracheotomy, so certainly indicated, could be performed only with great difficulty. One of two ways could be adopted in performing tracheotomy: either cut directly through the tumor, or remove the tumor first, and afterward open the trachea. He was unable at that time to decide which he would adopt. The pa-

tient, however, declined any operative interference, and went away. Not long afterward Dr. Post saw the patient, and proposed tracheotomy, but the proposition was declined. Finally Dr. Gerster was called, and was asked to resort to whatever surgical procedure was necessary. Not having a cannula of the proper size, he was obliged to extemporize one as follows: Three inches and three quarters of the curved end of a tin catheter, of No. 13 English caliber, were cut off for a cannula. A suitable piece of sheet brass was perforated in the middle for the admittance of the cannula, which latter also received two lateral holes near the end fitted to the plate. Two wire loops, placed near the large aperture of the plate, served to hold the cannula and the plate together by means of a wire pin thrust through the loops and the cannula.

Although the woman had fatty heart, and her general condition was very bad, he preferred to use chloroform, on account of the threatening lung complication. The anæsthetic was administered without accident. An incision, extending from the chin to the jugular fossa, was made in the median line and down to the capsule of the tumor. This did not give sufficient space, and a second incision was made, at a right angle with the first, at about the middle of the neck, and extending from the anterior margin of one sterno-cleido-mastoid muscle to the first incision. Beginning at the lower border of the tumor, he proceeded to enucleate the growth, and soon discovered that it was attached to the anterior surface of the trachea. Whenever he lifted the tumor the trachea was so much compressed as to prevent the entrance of air into the lungs. By means of a blunt instrument he therefore dissected the tumor off, and then found that the tracheal rings from the first to the fifth had been involved in the disease. After the trachea had been laid bare there was no diminution in the severity of the dyspnoea. An incision was made through the tracheal rings, and the tube was introduced. No unfavorable symptoms followed. The patient recovered rapidly from the anæsthetic, and took food shortly after the operation. During the first twenty-four hours she had slight fever. In the afternoon of the second day she had an attack of threatening collapse, for which stimulants were given, and she rallied. It was ordered that the stimulant be continued, and increased should threatening symptoms again appear. Either through failure to give sufficiently explicit directions, or lack of understanding on the part of the attendants, stimulants were given to the extent of producing acute alcoholic intoxication, and on the evening of the third day she was a maniacal drunken person, and in the drunken fit died in collapse.

Dr. Gerster reported the case for its interest in the manner of death as much as for the interest in the tumor itself. The tumor had been examined microscopically, and determined to be a cancer. The prognosis in malignant growths of the thyroid gland was very unfavorable. In a recent number of Langenbeck's "Archiv" a synopsis had been given of the published cases, and it had been found that most of the patients perished very shortly after an operation, whether for removal of the body or for tracheotomy necessitated by the great difficulty of breathing. But, despite the bad prognosis, he thought the surgeon was justified in attempting to give these patients relief.

The hæmorrhage at the operation was very slight, as every portion of connective tissue was divided between two ligatures.

In reply to questions, Dr. Gerster remarked that the tracheal rings could not be recognized by sensation as the knife passed through the tissues, and yet the trachea maintained its usual appearance after the tumor had been removed from its anterior surface. In most of these cases similar tumors had existed in the mediastinum, and the tracheotomy was therefore performed to obviate death from sudden development of subsequent attacks of dyspnoea.

Reports on the Progress of Medicine.

QUARTERLY REPORT ON OPHTHALMOLOGY AND OTOTOLOGY.

No. XII.

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(Concluded from page 26.)

A NEW REGISTERING PERIMETER.—Priestley Smith ("Ophth. Rev.," Nov., 1882) has devised a new perimeter, which he describes as follows: The base of the instrument is a strong wooden stand, 19 inches long by 8 inches wide. It contains a drawer, in which lie the charts, squares of paper for test-objects, and colored pencils for outlining the field. At one end of the base is a short metal support carrying a wooden pillar, which terminates above in a round knob. The patient rests his face lightly against the pillar, so that his eye stands vertically over the knob, and about an inch and a half above it. At the other end of the base is a strong metal column, bearing the movable portions of the perimeter, viz., the axis carrying the quadrant, hand-wheel and pricker, and the chart-holder. The quadrant is a flat slip of brass, presenting its edge to the eye under examination, and engraved on its two sides in intervals of five degrees; the figures are thus hidden from the patient, but visible to the operator. The test-object, a square of paper changeable at pleasure, is held in a little clip which slides on the quadrant; the latter is notched on its outer edge, so that the test-object is readily moved along by ten degrees or five degrees at a time. The radius of the inner edge of the quadrant is ten inches. The revolving axis which carries the quadrant has fixed to its other end a wooden disc or hand-wheel eight inches in diameter, by means of which it is rotated; this wheel is weighted in such a way as to counterbalance the weight of the arc; the latter, therefore, travels smoothly round the whole circle, and remains at any point at which it may be placed. On the posterior surface of the hand-wheel is the pricker. This is a pointed steel pencil, which slides in a brass plate in the meridian corresponding to the quadrant of the perimeter. The brass plate is graduated from 0° to 90°, like the quadrant. The position of the pencil is altered by the finger and thumb of the operator acting on buttons near the edge of the hand-wheel. Behind the hand-wheel is the chart-holder, hinged at the bottom and kept in position by a spring-catch; when the catch is raised by the finger the chart-holder falls backward, so that the chart may be inspected or a new one introduced. The chart is thus held very near to the point of the pricker, and is easily brought into contact with it by the thumb of the operator. When the pricker is drawn out to 90° on the scale, it travels over the outermost circle of the chart; when it is pushed down to 0°, it stands in the axis of the instrument and corresponds to the center of the chart.

POWDERED BORIC ACID IN THE TREATMENT OF PURULENT CONJUNCTIVITIS.—Ferguson ("Ophth. Rev.," Nov., 1882) suggests the application of finely powdered boric acid to the conjunctiva in purulent conjunctivitis. He has found that it checks the discharge completely for a period varying from two to twelve hours, and in the milder cases the first application is sufficient to stop the discharge altogether. When the discharge reappears, it is usually less in amount and more watery in character, and a very few applications of the powder stop it entirely. The con-

junctiva is then red and succulent, but dry, and, if touched two or three times with a solution of silver nitrate, it rapidly returns to its normal state.

NYSTAGMUS AND HEMERALOPIA IN MINERS.—Dransart ("Ann. d'oculistique," Sept.-Oct., 1882) comes to the following conclusions as regards the etiology and prognosis of nystagmus and hemeralopia occurring in miners: 1. The nystagmus of miners is a simple paresis of the levator muscles and nerves of the eyes, produced by fatigue in these levators as a consequence of work in veins but slightly elevated and in low galleries; and is independent of a central lesion of the nervous system, as well as of any error of refraction. The general atony, anæmia, and faulty illumination are secondarily important factors, but not essential to the production of nystagmus in miners. 2. There exists in miners a hemeralopia closely connected with the nystagmus, but which may exist independently of this affection. 3. The nystagmus of miners is a curable disease, and should not be considered as a reason for exemption from military service.

CERTAIN COMPLICATIONS FOLLOWING THE OPERATION FOR THE EXTRACTION OF CATARACT, AND THE MEANS FOR PREVENTING OR REMEDYING THEM.—Abadie ("Ann. d'oculistique," Sept.-Oct., 1882) begins by sounding the praises of strict antiseptic surgery, but admits that, in spite of all these precautions, there occur from time to time cases of suppurative iridochoroiditis after extraction of cataract. These secondary complications Abadie regards as due, in the immense majority of cases, to the inoculation of septic substances in the corneal wound. The influence of these germs deposited in the wound far outweighs in importance any diathetic influence in the causation of inflammation. When the inflammation develops rapidly, within twenty-four hours after the operation, it is generally very violent and very grave, and, in spite of all antiphlogistic treatment, the eye is usually lost by suppuration. Convinced that the cause is infection of the wound, Abadie now uses disinfectants from the beginning, in place of antiphlogistics. As soon as the danger threatens he removes the bandage, separates the lips of the corneal wound with a probe, and evacuates the contents of the anterior chamber, if necessary, by slight pressure on the eyeball. He then introduces into the anterior chamber the spray from a vaporizing machine filled with a saturated solution of boracic acid, and thus irrigates completely and effectually the anterior chamber. Then during the day every fifteen minutes, and several times during the night, a spray of the same strength is directed upon the eye so as to cleanse completely the conjunctival surface. Every four hours a collyrium of eserine is to be instilled. At the end of twenty-four hours the chemosis is noticeably diminished, the pain is less, and all the symptoms are more favorable. This treatment is to be kept up as long as may be deemed necessary. When the inflammatory action threatens to be very violent, Abadie cauterizes the entire extent of the corneal wound with the galvano-cautery, the platinum wire being heated to a white heat; and he has seen the cornea on the following day become transparent, the aqueous humor regain its limpidity, and the morbid process arrested completely.

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OTOLOGY.

HÆMORRHAGIC INFLAMMATION OF THE LABYRINTH IN CHILDREN.—LUCÆ ("Arch. f. path. Anat. u. Physiol. u. f. klin. Med.," lxxxviii, 3) states that if in a previously normal ear complete deafness suddenly appears, we must assume that there has occurred a sudden hæmorrhage into the labyrinth. When this occurs in children the deafness is, almost without exception, bilateral, and more or less complete; and coming as it does usually at a very early age, the result is almost certain to be deaf-mutism. In one case which he reports there were two stages distinguishable in the disease: one short, which, under the form of epidemic cerebro-spinal meningitis, is about ended on the tenth day; and a second longer, which, with a reappearance of the meningeal symptoms, ended in six weeks in death. The close of the first period was marked by the sudden deafness, which was bilateral and complete, and remained so until death. The deafness is not accompanied by vertigo. At the autopsy of this case, in detaching the dura from the petrous bone there was seen on both sides a moderately thick, red, vascular, cord-like prolongation from the dura, which entered the petrous bone beneath the superior semicircular canal. When this was removed, its place of entrance was found to be a deep, red, triangular opening. Lucæ concluded that this was the channel by which the inflammation was propagated from the brain to the labyrinth, and that in this propagation the bony structure surrounding the semicircular canals plays an important part. An osteo-myelitis first arises, then the vessels become inflamed, and finally a hæmorrhagic inflammation in the semicircular canals is produced, in which it is still uncertain whether the inflammation or the hæmorrhage is the first step. This bony structure in young children is extremely thin. If the dura covering the petrous bone be regarded as its periosteum, which acts as conductor for the nutritive fluid coming from the middle meningeal artery and its various branches to the pyramid, it will be seen, on careful examination, that of these arterial branches the arteria subarcuata is the one upon which the growth of the bony tissue surrounding the semicircular canals depends. It is known that in new-born infants the two vertical canals lie almost uncovered, and that the vascular cord from the dura is here very large, and its point of entrance is very wide, while as years go on, both become smaller from de-

posit of bone around them. This may explain why diseases of the cranial cavity and middle ear in young children so often lead to great disturbances of nutrition of the pyramid and labyrinth. To this circumstance must be ascribed the great vulnerability of the labyrinth in very young children. The great danger of all is the threatening deaf-mutism, because the exciting cause for these destructive changes in the labyrinth occurs at a period when the child either has not yet begun to speak, or else when the command of the faculty of speech is still very slight.

NEW AUDIOMETER FOR APPRECIATING AUDITORY SENSIBILITY.—Lacharrière ("Ann. des mal. de l'oreille," etc., July, 1882) describes a new audiometer for determining the degree of auditory sensibility. It consists, 1, of a microphone for giving appreciation of the noise, and set in motion by two small piles of chloride of silver; 2, of a tuning-fork, caused to vibrate by a battery of four piles of manganese; 3, of a telephone for transmitting to the ear noises and sounds; 4, of a rheostat for determining the number of ohms or electric units introduced into the circuit; 5, of the principal induction-coil, which is traversed by the currents from both sources of electricity, which is Boudet's. The tuning-fork is made to vibrate by four elements of binoxide of manganese contained in the bottom of the box. The current penetrates the tuning-fork on one side by the heel of the instrument, which receives the wire of the negative pole, and from the other side by an induction-coil placed at its ends. The innermost induction-coil is connected with the pile by the "manette," and gives off a wire, which, by the aid of a regulating button, connects it with the platinum wire bound to the end of the tuning-fork, and serves as interrupter. The outermost induction-coil is connected on one side with the rheostat, and on the other with Boudet's induction-coil.

AUDIOMETERS.—Baratoux ("Rev. mens. d'otol.," Aug., 1882) describes a modification of Boudet's audiometer, which he thinks is an improvement. He preserves the rheostat and telephone in place, but suppresses the microphone and watch. In the place of the latter he has introduced an electric tuning-fork with a single coil. This tuning-fork is attached at one end to the pile, and at the other to a Boudet's coil. By means of the formula given by Boudet, he can measure the auditory acuity in ohms. To do this, it is necessary to first measure the resistance of all the apparatus employed. He employs the pile of Calland-Trouvé.

BOILER-MAKER'S DEAFNESS AND HEARING IN A NOISE.—Dr. Holt ("Trans. of the Am. Ophth. Soc.," iii, 1, 1882) has examined the hearing and ears of a large number of boiler-makers. He found that several of these men could hear the tick of a watch when pressed against the auricle, when they could not hear it from the mastoid or the temple. When placed vibrating in the center of the teeth or vertex, the tuning-fork was invariably heard better in the poorer ear. The length of time the tuning-fork was heard by bone conduction indicated that the deafness was not due wholly to the effects of the concussions upon the nerves, but that it was principally due to the effects of the occupation upon the conducting apparatus of the ear, since they heard the tuning-fork, when placed vibrating in the center of the teeth, as long as or longer than the normal ear, and always longer in the deaf ear for aerial sounds. The more Holt examined these men, the more he was impressed with the idea that the impaired hearing was due much more to the condition of the conducting apparatus than to an impairment of the central perceptive apparatus of the ear, and also that there was a direct bone or tissue conduction of sound to the nerve. In all, the membrana tympani showed about the same changes that are observed to have taken place in chronic catarrhal otitis media. The naso-pharynx was invariably in a catarrhal condi-

tion. The Eustachian tube was patent in most of the cases. He thinks that those patients who claim that they can hear better in a noise are inexact in their observations, and labor under a misapprehension of facts. In reviewing the results of the examination of the men who are employed in making steam-boilers, Holt finds that all thus engaged become more or less deaf, the degree and length of time elapsing before this occurs depending somewhat upon the tendency of the middle ear to take on catarrhal inflammation. The deafness and condition in which the organ of hearing is found does not differ materially from that of chronic catarrhal otitis media, since it is produced by a similar cause, and is due much more to a defect in the conducting apparatus of the ear than to the perceptive part of the same organ, the exciting cause of the deafness being traceable to the constant agitation of the joints of the ossicles, thereby exciting inflammation of these structures, and producing more or less ankylosis of them, particularly of the stapes.

TREATMENT OF AURAL POLYPI.—Knapp ("Trans. of the Am. Ophth. Soc.," iii, 1, 1882) takes occasion to warn against repeated cauterizations, and expresses a decided opinion in favor of the alcohol treatment. He recommends that granulations with a broad basis be allowed to grow until they have become pedunculated. He prefers the old method of avulsion, as being both expeditious and efficient.

BILATERAL ABSENCE OF THE LABYRINTH IN A DEAF-MUTE.—Moos and Steinbrügge ("Ztschr. f. Ohrenheilk.," xi, 4) found that the *labyrinth* was absent on both sides. On the right side there was no space corresponding to the vestibule, nor was there any sign of a cavity of a semicircular canal or of an ampulla. In place of the vestibule was a mass of fat-globules and finely meshed connective-tissue fibers. The canals for the passage of the vestibular nerves were, however, present, as well as the nerves themselves. There was no trace of the cochlea. On the left side almost exactly similar conditions existed; there was not a trace of semicircular canals, ampullæ, or cochlea. On examining the auditory nerves, some of the fibers were normal, but others were altered and pushed aside by connective-tissue fibers, and had lost their medullary sheath either entirely or in part. Varicosities of varying size were very numerous in the course of the nerve fibers, so that in many places they looked like a string of pearls. In between the fibers were occasionally seen groups of rounded hyaline globules. The entire process was atrophic and pathological, the atrophy being that from inactivity or disuse. It is to be regarded as another proof of the correctness of the view that the different parts of the ear are developed independently.

ACUTE DEGENERATION OF THE AUDITORY NERVES IN PACHY-MENINGITIS.—In examining the skull and ears of a patient who died from hæmorrhagic pachymeningitis complicated with pyæmia, Moos and Steinbrügge ("Ztschr. f. Ohrenheilk.," xi, 4) found changes in the auditory nerve and right internal auditory artery. The auditory nerves had both undergone degeneration of their trunks in the labyrinth, the cause of this being the very considerable subdural and interfascicular extravasations of blood, and the thrombotic changes in the course of the internal auditory artery. The latter probably occurred only a short time before death, and the structure of the thrombus did not furnish any grounds for assuming its pyæmic origin. The hæmorrhage into the nerve caused a laceration of a large number of nerve fibers, which, deprived of their nutrition, soon degenerated. The entire process was very acute during the last days of life, for the peripheral nerves in the labyrinth remained intact, in spite of the degeneration in the trunk of the auditory nerve. The degenerative process, moreover, was limited rather to the central portion of the nerve trunk, while the more superficial nerve fibers remained normal.

THE SENSE OF DIZZINESS IN DEAF-MUTES.—James ("Am. Jour. of Otol.," Oct., 1882) has made some interesting observations upon the sense of dizziness in deaf-mutes. He assumed that among the inmates of deaf-mute asylums there must be a considerable number in whom either the labyrinths or the auditory nerves in their totality have been destroyed by the same causes that produced the deafness. If the semicircular canals be really the starting-points of the sensation of dizziness, we ought to find a certain proportion of deaf-mutes who are completely insusceptible of that affection, and others who enjoy immunity in a less complete degree. His observations were made upon 519 deaf-mutes, of whom 186 are reported as totally insusceptible of being made dizzy by whirling rapidly round with the head in any position whatever, and 134 are set down as dizzy in a very slight degree. The simplest way of testing the matter was by active spinning about on the feet with the head successively upright, bent forward, and inclined on one shoulder, the eyes being closed, to eliminate purely optical vertigo. Taken in their crudity, these answers suggest the bare possibility that anæsthesia of the semicircular canals *may* confer some little immunity from this particularly distressing form of imaginative weakness.

CHINOLINE SALICYLATE IN OTORRHOEA.—Burnett ("Am. Jour. of Otol.," Oct., 1882) has been continuing his observations upon the salicylate of chinoline in otorrhœa, as to its effects in checking the purulent discharges and destroying the offensive odor. He has found better results from mixing the pure powder with powdered boracic acid in the proportion of one drachm of the chinoline salicylate to one ounce of boracic acid. The ear should be cleansed by cotton on a swab, and then the powder should be insufflated.

THE PROGRESSIVE GROWTH OF THE DERMOID COAT OF THE MEMBRANA TYMPANI.—Blake ("Am. Jour. of Otol.," Oct., 1882) has been making observations upon the direction of the movement of the outer superficial coat of the drum-membranes, which were conducted as follows: Small discs were cut from thin, double-sized foreign post or note paper, dipped in water, caught one at a time upon the end of a fine, cotton tipped, bent wire probe, carried into the ear under good illumination, and successively brought into contact with the membrana tympani, to which they immediately and firmly adhered, the warmth of the surface quickly setting the sizing. At intervals of from two to five days the ear was examined, and the movement of each disc recorded on a drawing. The discs, placed just posteriorly to the malleus, usually made a nearly straight line toward the posterior-superior periphery of the membrane, their lines of movement coinciding after they had passed the periphery and reached a point varying from two to five millimetres distant from the periphery, on the wall of the canal. The disc placed at the tip of the malleus described a slight curve and followed the line of its predecessors, but without overtaking them, being usually from one to three days longer in reaching the periphery. The third disc, placed in front of the tip of the malleus, described a still larger curve, and made its way also toward the posterior-superior periphery. The disc placed in front of the malleus, about half way between the tip of the manubrium and the short process, made its way, more slowly than the others, in a nearly straight line toward the anterior-superior periphery, where it either continued directly outward along the superior wall of the canal, or else passed over the superior border of Shrapnell's membrane. From these observations it would seem that the most rapid clearing away of the dermoid coat of the membrana tympani occurs in that portion of the membrane the integrity of which is most important to its function of vibration with the malleus, and the most vigorous progressive outward movement of the lining of the canal occurs in the same line.

DILUTE MINERAL ACIDS IN THE TREATMENT OF CARIES, NECROSIS, AND EXOSTOSES OF THE EAR.—Pritchard ("Brit. Med. Jour.," Oct. 21, 1882) speaks highly of the efficacy of dilute mineral acids, preferably nitric acid, in cases of subacute and chronic inflammation of the bone with caries or necrosis of the walls of the external auditory canal, tympanum, or internal ear, and also of the mastoid process. The acid seems to dissolve the dead particles of bone and induce a healthy action. Should there be a piece of necrosed bone, more or less loose, but not free enough to be removed at once, the acid injections will be found valuable. The necrosed bone is in a position to be readily decalcified by the acid; and when the piece is thus softened, it can easily be removed by forceps, or, as frequently happens, it is unconsciously syringed out by the patient. The strength of the acid solution should be from one fourth to one half per cent. of the pure nitric acid, to which a little carbolic acid is to be added to render the solution more thoroughly antiseptic. The ear is to be syringed with this solution, warm, two or three times a day. In mastoid diseases, where a sinus back of the auricle exists, or an incision has been made, this wound or sinus should be syringed two or three times a day; and if there is any communication through the bone between the sinus and the tympanic cavity or canal, as often happens, the acid solution should, if possible, be syringed through from canal to wound, and from wound to canal.

In the case of exostoses, which either partially or completely block the external auditory canal, and which are complicated with suppurative disease, caries, or necrosis, the removal, or partial removal, of the bony obstruction is imperative; and here the acid solution may be of great value, either alone or as an adjuvant to the operation of drilling. He gives a number of cases in detail, showing the advantages of this method of treatment.

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Letters to the Editor.

THE POLYCLINIC.

NEW YORK, December 23, 1882.

To the Editor of the *New York Medical Journal*:

SIR: In the editorial on the New York Polyclinic in the number of your journal for January 6th, it is stated that "the scope of the two schools varies in some matters of detail, undergraduates being admitted to the Polyclinic," etc. Will you allow me to correct this error? *None but legally qualified practitioners are allowed to study at the Polyclinic.* Of the sixty-four members of the class during the first six-weeks course, only three were admitted who were not graduates. These matriculated early in the session. The classes at the Polyclinic are now so well patronized by practitioners that henceforth none other than practitioners will be admitted. The Faculty feel gratified at the encouragement and support it has received from the medical press and the profession everywhere, and are making every effort to meet the demands of medical men for more thorough opportunities for practical study. This is evident from the fact that since our institution was opened, on the 23d of October, to date, December 23d, eleven hundred and sixty patients have been treated in the presence of the class.

JOHN A. WYETH, M. D.,
Secretary of the Faculty.

MISSTATEMENTS CONCERNING THE NEW YORK CODE.

To the Editor of the *New York Medical Journal*:

SIR: As the time for the meeting of the Medical Society of the State of New York approaches, it may be well to examine some of the misstatements that have appeared in various medical journals concerning the late action of the State Society in the matter of the new code of ethics. These may be summarized as follows: The new code was passed at an unusually small meeting, and rushed through without discussion by a horde of New York specialists. The facts are that the attendance at the meeting was larger than the average attendance at the meetings of the previous four years. An abstract of the discussion fills twenty-five pages of the published transactions. The New York specialists present were eleven in number, the total attendance being one hundred and sixty-nine. It has also been stated that the report of the committee was "sprung on the society without notice." The facts are that the report of the committee was printed in advance of the meeting, and a copy was furnished to each member in attendance prior to the session at which it was acted on, thus permitting all to thoroughly acquaint themselves with its nature.

The merits of the question were thoroughly entered into and decided, and we conceive that the only point really open for discussion is the question of expediency. It may be noted that in this State but two prominent objectors to the code have come to the front. One of them was within a week after its passage a violator of one of its important provisions—the one which sought to check newspaper advertising through the medium of reporters—and the other objector is not a practicing physician, but a manufacturing pharmacist. Two incidents have struck us as noteworthy: first, the meddling of the Philadelphia journals in a matter which concerned our State only, and not theirs; and, second, the meddling of the pharmacist in question in a matter that concerned medical practitioners only.

Yours, respectfully,

TRUTH.

A SUBSIDY TO PASTEUR.—The "Journal of the Franklin Institute" quotes "Les Mondes," to the effect that the French minister of agriculture has lately placed at the disposal of M. Pasteur a new sum of 50,000 fr. (\$10,000), in order to continue his admirable investigations upon the contagious diseases of animals. The government had already granted to the illustrious savant, for the same object, 50,000 fr. in 1880, and 40,000 in 1881. The minister consulted a special committee, who, in view of the brilliant success obtained by Pasteur in his previous investigations, unanimously recommended a renewal of the grant.

CELLULOID tracheotomy tubes are being tried in London.

New Inventions, etc.

A UTERINE SAW.

By CLEMENT CLEVELAND, M. D.,

ASSISTANT SURGEON TO THE WOMAN'S HOSPITAL.

The accompanying wood-cut represents a saw designed chiefly for the operation of trachelorrhaphy, but it may prove useful in amputations and divisions of the cervix. On both edges there is a double row of teeth, set backward, the object being to cut only or chiefly with the backward stroke, just as the jeweler uses the watch-spring saw. To be more explicit, the instrument is not to be used as a knife, but should be kept constantly against the tissue, and moved backward and forward with a gentle motion and light pressure. Used in this way, it makes a clean-cut surface.

The advantages claimed for the instrument are as follows: In cases where there is much cicatricial tissue, the operator has difficulty often in starting and even continuing the operation with the scissors, and finds recourse to the knife necessary, or at least an advantage. The objection to the knife, however, has been that too much hemorrhage is likely to follow its use. With the saw, the denuding is accomplished more rapidly than is possible with the scissors, and with less loss of blood.

It is not intended as a substitute for the scissors, but merely to supplement them, and can only be of decided advantage when the cervix is hard and cicatricial. In the ordinary case the scissors is by far the better instrument to use.

With this, as with the scissors, it requires a little practice to acquire the dexterity necessary to use it with ease.

Richardson's serrated scissors have been used in repair of the cervix, but they lacerate the tissues so much that union is imperfect. It was thought that this instrument would be open to the same objection, but thus far it has been used in three cases at the Woman's Hospital, with perfect union resulting in all.

Besides the shape figured in the cut, one has been constructed to fit Sims's knife-handle.

The instrument is manufactured by Mr. W. F. Ford, of the Instrument Department of Caswell, Hazard & Co.



Miscellany.

THE BOGUS BELLEVUE OF BOSTON.—Some of the corporators and officers of the Bellevue Medical College, of Boston, having been arrested on a charge of issuing bogus diplomas, and uncontroverted testimony having been offered by the prosecution that the concern had granted diplomas to persons grossly ignorant of medicine, and after a so-called course of instruction of a few weeks or less—the defendants simply maintained that the laws of the State allowed all this. The worst of it all is, that this defense could not be overthrown, and so the accused were discharged. This is an unusually flagrant case of imposition, in that the college bears a title calculated to lead the uninformed to look upon its degrees as having been conferred by one of the great medical schools of New York. In all other respects it can be matched in almost any of our large cities. How long will it take the public to learn that the protection of the medical profession means their own protection?

BODY-SNATCHING IN PHILADELPHIA.—In connection with the recent scandal in regard to the desecration of graves in Lebanon Cemetery, for the purpose of supplying anatomical material, the newspapers report that several arrests have been made, as the culmination of a clever piece of volunteer detective work done by the city editor of "The Press," assisted by a number of reporters. One of the accused is said to have made a confession, implicating some of the medical gentlemen connected with one of the colleges, two of whom have been placed under bail in \$5,000 each. It is to be hoped that the allegations on which the theory rests that these gentlemen were aware of the nefarious method resorted to by their purveyors of material may be shown to be false; and it is still more to be hoped that, if sufficient public provision is not now made for supplying the Philadelphia colleges with subjects, additional legislation to that end may be obtained promptly.

AN EXTRAORDINARY ANÆSTHETIC.—"Forest and Stream," an estimable paper for sportsmen, displays rare skill in concealing its sense of the ludicrous while treating its readers to a story of which the leading points are as follows: A German has invented and patented a device for alleviating the horrors of war—even doing away with them altogether. The invention consists of a gun throwing a hollow and fragile projectile filled with an anæsthetic of marvelous power. An entire army, it is said, can be put to sleep "instantly" by the discharge of one of these pieces, and the stupor is warranted to last for twelve hours, during which time the unconscious soldiers are made prisoners and carried off in ambulances, to await the declaration of peace. This improvement on the stink-pot is asserted to be perfectly harmless, notwithstanding its great power, and, besides its employment for military purposes, it is suggested that it may be used in hunting large game. The most ferocious brute falls helpless when hit by one of these missiles, so that the hunter is in no danger of coming to close quarters; while gentler animals are spared the pain of a lingering death from a shot that does not prove fatal at once.

THE DUBLIN ACADEMY OF MEDICINE.—Steps have been taken looking to a consolidation of the various medical societies of Dublin, under the title of an "Academy of Medicine," with the three grades of Fellows, Members, and Student Associates. There are to be four sections—Medicine, Surgery, Pathology, and Obstetrics; and two sub-sections—Anatomy and Physiology, and State Medicine. According to the "British Medical Journal," the Obstetrical Society seems inclined not to join in the movement.

THE EVETZKY TRAGEDY.—It is very much to be feared that our former contributor, Dr. Etienne Evetzky, is the person alluded to in a ghastly story that reaches us from the West. It seems that a Dr. Evetzky, having been publicly cowed by a woman, and suspecting his partner of complicity in the affair, shot the latter and then himself, both shots proving fatal. If our surmise as to the personality of the chief actor in this tragedy is correct, the poor gentleman must first

have become insane, for his rectitude and amiability were such that, with his mind unimpaired, even the most irascible of women could not have received at his hands such treatment as to lead her to attack him. Dr. Evetzky, a Russian by birth, was a resident of New York for several years, but somewhat less than a year ago he gave his friends to understand that he was about to take up his residence in a western city. He was a young man of much promise, and his sad end will be deplored by a large circle of friends.

THE UNITED STATES DISPENSATORY.—The Messrs. Lippincott, of Philadelphia, announce that the fifteenth edition of this standard work will be ready before the end of the month. The editors are Dr. H. C. Wood, Professor of Materia Medica and Therapeutics in the University of Pennsylvania; Joseph P. Remington, Professor of Pharmacy, and Samuel P. Sadtler, Professor of Chemistry, in the College of Pharmacy of Philadelphia. The revision is said to have been in all respects most thorough and complete, the new pharmacopœia being fully discussed, and the most recent non-official medicines, as well as those long out of date, being carefully considered.

RELIQUET'S INJECTION FOR CHRONIC CYSTITIS.—According to "L'Union Médicale," this consists of crystallized phenic acid, dissolved, with the aid of a sufficient amount of alcohol, in from one thousand to two thousand parts of distilled water. Properly prepared, it is said to give rise to no pain, but to act as an astringent, modifying the denuded surfaces and hindering absorption. After having washed the bladder out with water of the temperature of the body, the solution is injected very slowly, until the bladder is well distended, so that the liquid comes in contact with every portion of its interior. The injection is then allowed to flow out, and the organ is again washed out with warm water.

DEATH OF M. HILLAIRET.—Professor J. B. Hillairet, the well-known dermatologist, recently died at the age of sixty-seven years. Some two years ago his service at the Hôpital Saint-Louis, Paris, closed by reason of his having attained the age of sixty-five, the age at which the hospital physicians of Paris are retired. Nevertheless, he was often at work at the hospital, up to the last, perfecting the data for his "*Traité des maladies de la peau*," only one fasciculus of which has thus far appeared.

THE MEDICO-LEGAL SOCIETY.—The following-named gentlemen were recently elected officers of the society: President, Mr. Clark Bell; First Vice-President, Professor R. Ogden Doremus; Second Vice-President, the Hon. Delano C. Calvin; Secretary, Mr. Leicester P. Holme; Assistant Secretary, Mr. Gilbert R. Hawes; Treasurer, Mr. Jacob Shady; Librarian, Mr. R. S. Guernsey; Curator and Pathologist, Dr. Andrew H. Smith; Corresponding Secretary, Mr. Morris Ellinger; Chemist, Professor C. A. Doremus; Trustees, Dr. E. H. M. Sell and Mr. B. A. Willis; Members of the Permanent Commission, the Hon. A. G. Hull and Dr. M. H. Henry.

OBSTETRIC APPOINTMENTS IN PARIS.—The newly appointed hospital accoucheurs have been assigned to duty as follows: M. Budin to La Charité, M. Porak to the Saint-Louis, M. Ribemont to the Tenon, and M. Pinard to the Lariboisière.

A FRENCH EDITION OF DUHRING ON SKIN DISEASES.—To the high esteem in which Dr. Louis A. Duhring's treatise is deservedly held at home is now joined the additional field of the book consequent on its recent publication in French. The translation, with notes, is by MM. Toussaint Barthélemy and Adolphe Colson, and M. Alfred Fournier contributes a preface.

THE CHAIR OF ANATOMY AT HARVARD.—At a recent meeting of the Board of Overseers of Harvard University, Dr. Thomas Dwight, Instructor in Topographical Anatomy, was appointed to fill, for the remainder of the year, the chair of anatomy, made vacant by the resignation of Professor Holmes.

THE LYONS FACULTY OF MEDICINE AND PHARMACY.—M. Paul Caze-neuve has been appointed to the new chair of organic and toxicological chemistry.

THE MEXICAN "SNAKE MAN."—He is neither a mountebank nor an acrobat, says a *feuilletoniste*, in the "Gazette hebdomadaire de médecine et de chirurgie," but a poor fellow living in the village of Cuantla, in Mexico, affected with so singular a dermatosis that the physicians who have seen him are puzzled what to call it. The integument is greenish, and covered with scales closely resembling those of the rattlesnake—a resemblance still further heightened by a sort of autumnal moulting that the man undergoes every year. The skin does not fall gradually, in fragments, but is detached from large portions of the surface, so that the body looks like what is called in Mexico a "tuwon," a sort of bag of fresh skin with the bloody side out. A sister of this person died lately, affected with the same disease, having become blind by its extension to the eyes. The villagers speak of these persons only as rattlesnakes, and their disease is attributed to the fact that their mother, in order to cure herself of some affection of the blood, ate large quantities of the flesh of *Crotalus horridus*!

A NEW VEGETABLE STYPTIC.—"The Lancet" quotes from the "Neue freie Presse" a statement concerning a plant discovered during the French expedition to Mexico which, when chewed or crushed, exceeds in its styptic action all other substances yet known. Among the natives it is given a name that may be rendered *foolwort* (*Tradescantia erecta*, Jacq.). It has been acclimatized at Versailles.

CHOLERA is said to have been prevailing at Mecca since the 24th of October, and in Cochin China since the close of the summer.

ARMY INTELLIGENCE.—*Official List of Changes of Stations and Duties of Officers of the Medical Department, United States Army, from November 13, 1882, to December 30, 1882.*—ALDEN, CHARLES H., Major and Surgeon. At expiration of present leave, to report to the commanding general, Department of Dakota, for assignment to duty. S. O. No. 273, par. 10, A. G. O., November 23, 1882. — McKEE, JAMES C., Major and Surgeon, now awaiting orders, is assigned to duty in the Department of California. S. O. No. 273, par. 10, A. G. O., November 23, 1882. — WILLIAMS, JOHN W., Major and Surgeon, assigned to duty at Fort Coeur d'Alène, Idaho. S. O. 161, par. 3, Department of the Columbia, October 26, 1882. — MOORE, JOHN, Surgeon. The leave of absence granted by S. O. 145, C. S., Department of the Columbia, extended one month. S. O. 175, par. 2, Military Division of the Pacific, November 3, 1882. — MOORE, JOHN, Major and Surgeon. The extension of leave of absence granted November 3, 1882, is further extended one month. S. O. 283, par. 4, A. G. O., December 6, 1882. — SMITH, ANDREW K., Major and Surgeon. At the expiration of his present sick leave, will be assigned to duty at Willet's Point, New York. S. O. No. 273, par. 10, A. G. O., November 23, 1882. — BARNETT, RICHARDS, Captain and Assistant Surgeon. The leave of absence granted November 1, 1882, is extended five months. S. O. No. 273, par. 11, A. G. O., November 23, 1882. — BROWN, PAUL R., Assistant Surgeon. The leave of absence granted May 25, 1882, is extended six months on surgeon's certificate of disability. S. O. No. 273, par. 7, A. G. O., November 23, 1882. — CALDWELL, DANIEL G., Captain and Assistant Surgeon. Leave of absence granted in Special Orders No. 105, October 3, 1882, Department of the Platte, extended three months. S. O. 279, A. G. O., December 1, 1882. — CLEARY, PETER J. A., Captain and Assistant Surgeon, now awaiting orders, will report to the commanding general, Department of Dakota, for assignment to duty. S. O. No. 273, par. 10, A. G. O., November 23, 1882. — CORSON, JOSEPH K., Assistant Surgeon, is assigned to duty at Jefferson Barracks, Missouri. S. O. No. 273, par. 8, A. G. O., November 23, 1882. — CRAMPTON, LOUIS W., Captain and Assistant Surgeon. Granted four months' leave of absence. S. O. 280, A. G. O., December 2, 1882. — GARDNER, EDWIN F., Captain and Assistant Surgeon. Ordered to Fort Walla Walla for duty. S. O. 161, par. 3, Department of the Columbia, October 26, 1882. — GORGAS, W. C., Assistant Surgeon. Relieved from duty at Fort Brown, Texas, and will accompany the Nineteenth Infantry to Forts Clark and Duncan, Texas. Their future stations will be announced. S. O. 130, Department of Texas, November 27, 1882. — MADDOX, T. F. C., Assistant Surgeon. Relieved from duty at Fort Brown, Texas, and will accompany the Nineteenth Infantry to Forts Clark and Duncan, Texas.

Their future stations will be announced. S. O. 130, Department of Texas, November 27, 1882. — POWELL, J. L., Assistant Surgeon. Relieved from temporary duty as attending surgeon at Headquarters, Department of Texas, and to proceed to Fort Davis, Texas, and report to the commanding officer for duty. S. O. 129, Department of Texas, November 23, 1882. — REED, WALTER, Captain and Assistant Surgeon. Relieved from duty in the Department of the East and assigned to duty in the Department of the Platte. S. O. 266, par. 4, A. G. O., November 14, 1882. — REED, WALTER, Captain and Assistant Surgeon. Assigned to duty as attending surgeon, Headquarters, Department of the Platte. S. O. 127, par. 2, Department of the Platte, December 4, 1882. — TAYLOR, MARCUS E., Captain and Assistant Surgeon. The leave of absence granted August 14, 1882, is extended two months. S. O. 283, par. 6, A. G. O., December 6, 1882. — GRAY, WILLIAM W., First Lieutenant and Assistant Surgeon. The leave of absence granted on surgeon's certificate of disability, October 31, 1882, Department of the South, is extended five months on surgeon's certificate of disability. S. O. 278, par. 3, A. G. O., November 29, 1882. — MUNDAY, BENJAMIN, First Lieutenant and Assistant Surgeon. Will be relieved from duty at Willet's Point, New York, and assigned to duty in the Department of the Columbia. S. O. No. 273, par. 10, A. G. O., November 23, 1882. — OWEN, WILLIAM O., Jr., First Lieutenant and Assistant Surgeon. To proceed to Astoria, Oregon, and report to First Lieutenant E. B. Rheem, Twenty-first Infantry, for duty with his command. S. O. 164, par. 5, Department of the Columbia, October 30, 1882. — WYETH, M. C., First Lieutenant and Assistant Surgeon. To report to Fort Snelling, Minnesota, for temporary duty. S. O. 185, par. 3, Department of Dakota, November 9, 1882. — PERIN, GLOVER, Lieutenant-Colonel and Surgeon. Granted leave of absence for one month, from the 19th instant. S. O. 217, Department of Dakota, December 20, 1882. — ALDEN, CHARLES H., Major and Surgeon. Now in St. Paul, Minnesota, to proceed to Fort Yates, Dakota Territory, and report to the commanding officer of that post for duty. Par. 3, S. O. 212, Department of Dakota, December 14, 1882. — BILL, JOSEPH H., Major and Surgeon. Will report to the commanding officer, Fort Omaha, Nebraska, for duty. Par. 4, S. O. 134, Department of the Platte, December 21, 1882. — BROWN, JUSTUS M., Major and Surgeon. Granted leave of absence for fifteen days. S. O. 119, Department of the South, December 11, 1882. — KILBOURNE, H. S., Captain and Assistant Surgeon. Granted leave of absence for one month, with permission to apply, through Headquarters Military Division of the Missouri, for an extension of two months. S. O. 218, Department of Dakota, December 21, 1882. — PORTER, J. Y., Captain and Assistant Surgeon. To proceed to St. Francis Barracks, St. Augustine, Florida, and to report to the commanding officer of that post for temporary duty. Par. 2, S. O. 119, Department of the South, December 11, 1882. — REED, WALTER, Captain and Assistant Surgeon. Relieved from duty as attending surgeon Headquarters Department of the Platte, and will report in person to the commanding officer, Fort Omaha, Nebraska, for duty. S. O. 134, Department of the Platte, December 21, 1882. — TURRILL, H. S., Captain and Assistant Surgeon. Upon being relieved from duty at Fort Omaha, Nebraska, will proceed to Fort Fred Steele, Wyoming, and report to the commanding officer of that post for duty thereat. Par. 5, S. O. 134, Department of the Platte, December 21, 1882. — BANISTER, J. M., Assistant Surgeon. To proceed to camp on White River, Colorado, and report to the commanding officer for duty. Par. 7, S. O. 250, Department of the Missouri, December 11, 1882. — HALL, W. R., Assistant Surgeon. Leave of absence for one month is granted. Par. 8, S. O. 250, Department of the Missouri, December 11, 1882. — HOPKINS, WILLIAM E., Assistant Surgeon. Granted leave of absence for two months, to commence January 1, 1883, with permission to apply for an extension of two months. Par. 1, S. O. 88, Military Division of the Atlantic, December 28, 1882. — MADDOX, T. F. C., Assistant Surgeon. To report to the commanding officer, Fort Clark, Texas, for duty. S. O. 138, Department of Texas, December 16, 1882. — WYETH, M. C., First Lieutenant and Assistant Surgeon. Granted one month's leave of absence. Par. 4, S. O. 206, Department of Dakota, December 8, 1882.

Lectures and Addresses.

A CLINICAL LECTURE ON GASTRO-DUODENAL CATARRH IN YOUNG CHILDREN.

DELIVERED AT THE HARVARD MEDICAL SCHOOL, BOSTON,

By JOSEPH P. OLIVER, M. D.,

INSTRUCTOR IN DISEASES OF CHILDREN.

PHYSICIANS in general practice are often called to see and prescribe for little patients who present the following symptoms: They are delicate-looking, and one is told that for some time past they have complained of languor and weariness, particularly after slight exertion. They appear to be bright and fresh enough in the morning, but as the day wears on they are apt to be dull, and disinclined to play. When the hour to be dressed and go to the park arrives, they do not care to go out, but prefer to stay at home. Usually good-natured and amiable with their brothers and sisters or other companions, they now become peevish and fretful, complain of occasional headache, are restless at night, grind their teeth, have bad dreams, wake up suddenly in terror, and at times with pain in the legs. The appetite is capricious; to-day there is none whatever, to-morrow it may be voracious. After eating, they will frequently complain of pain in the region of the stomach and small intestine. The tongue is at times clean, and again it has a moist, milky coat, through which the papillæ show prominently. The tip and edges are usually clean, and not particularly red. The bowels may be constipated, or they may be so for a few days, and then a little loose, or the child may have a slight clay-colored operation daily for a week or ten days. The breath is at times very offensive. In the autumn or spring there is apt to be more or less follicular pharyngitis. Now, this condition of things persists till the child has what the mother calls a "bilious attack"—that is, headache, nausea, vomiting, and diarrhœa. The child is then in bed for a few days, and after that is a little better for a while, but in the course of a few weeks goes through with the same thing again. Occasionally there is a little cough; short and hacking during the day, but loose in the morning. The temperature is never above the normal unless the so-called "bilious attack" is protracted. Now, the foregoing symptoms go to make up what is called gastro-duodenal catarrh—an affection which, in my experience, is very common, especially in girls between the ages of four and twelve. Sometimes the symptoms are vague and indefinite. The patients do not have the explosive or so-called bilious attacks, and the parents do not seek advice until the condition of emaciation or a slight cough suggests the terrible name of phthisis. The symptoms often come under the head of that unscientific term, "general debility," and I am very sure that in children these symptoms mean nothing more nor less than gastro-duodenal catarrh.

The affection is often met with after some exhausting disease like pneumonia or typhoid fever; it may, however, occur without being preceded by either of those affections.

I presume that during the fever the system in general becomes so exhausted that the digestive organs partake of or share in the general weakness. In these cases the appetite is at times voracious, and, if the child is allowed to indulge it, the penalty for the indiscretion is generally pretty severe; an acute attack is developed with its train of distressing symptoms, such as pain in the head, nausea, vomiting, intestinal pain, and, perhaps, diarrhœa. As is well known, a child is not nourished by the bulk of food he takes into his stomach, but only by the food he can digest. In all children there is a constant tendency to acid fermentation of their food. This is very marked in feeble children; it may be due to their diet. The mucous membrane lining the intestinal tract is naturally active, and, on the slightest irritation, pours out suddenly and freely an alkaline secretion; if they have over-eaten, or if starchy food has too largely entered into the diet, fermentation is set up, and an acid is formed which stimulates the mucous membrane to further secretion. Now, this excess of mucus is the *fons et origo mali* under consideration, for it interferes with the digestion and absorption of food. As a result, the child is imperfectly nourished, and, from lack of nourishment, the symptoms of general debility, or, properly in these cases, gastro-duodenal catarrh, are developed.

As I before stated, the affection is more common in girls than in boys. With watchful parents some children seldom have the explosive attacks. The cases are less severe, but the child is half sick all the time.

During second dentition this affection is extremely common, and often mothers believe this process to be the occasion of the child's ill-health. Worms are also supposed to be the cause of the illness, and it is not surprising that mothers think so, for it is not unusual to find in these cases lumbrici or oxyuri. The excess of mucus which is secreted forms a favorable nidus for the development of the worm, and, consequently, the parasite is less a cause than a result of the disease.

The symptoms, then, may be briefly enumerated as follows. I refer to the subacute or chronic gastro-duodenal catarrh, not the acute affection. The so-called "bilious attacks" which occur in these cases are simply the affection rendered acute for a few hours or days, and need not be described in this lecture.

First, the child's appetite is capricious or fails altogether. He is constipated, and, perhaps, the constipation is followed by diarrhœa for a day or two. After this state of things has gone on for a time, he complains of feeling tired on slight exertion, is languid, indisposed to play. At times he is fretful and peevish, restless at night, grinds his teeth, wakes up suddenly with severe pain in his legs or in great terror. The child emaciates, the eyes are sunken and surrounded by dark rings. The skin becomes thin, harsh, and dry. There may be nausea and slight headache, with blurring of the eyes, and in older children, *muscæ volitantes*.

Through all this the tongue may be tolerably clean, or it may have a light milky coat, with the papillæ showing through prominently, the latter fact being generally significant of digestive disturbance in children. The so-called

"worm-tongue" may exist—that is, a tongue tolerably clean on the tip and edges, with a coating of shiny mucus in the center. The tongue is seldom markedly affected. The breath is often very offensive, though foul breath may be due to the disordered stomach or to buccal or pharyngeal catarrh. The cough which may be present is due to either slight bronchial catarrh, follicular pharyngitis, or elongated uvula. You frequently find hypertrophied tonsils in these cases, and the decomposition of the thick yellow secretion will account for the foul breath. Earache is not at all uncommon in these cases. I believe that I have before alluded to the occasional pain in the epigastric region after eating.

Now, having made a careful examination of the little patient, and having come to the conclusion that the symptoms are due to gastro-duodenal catarrh, having recognized the weakness of the digestive system, and having seen the evidence of defective nutrition, our indications for treatment are plain enough. We must increase the nutrition—that is, increase the supply of food, but at the same time we must be careful in our selection, as the fact that the digestive system is feeble must ever be before us.

Treatment.—First, the diet is to be arranged; as the tendency to fermentation is so marked in these cases, I eliminate the starchy foods as much as possible. You can not deny a child of from six to twelve years bread and potatoes altogether, but you can arrange an agreeable and varied diet, so that he shall get a minimum quantity of these articles. Many physicians believe that such cases would be benefited if oatmeal and cracked wheat should enter more largely into the diet; it is not so, however, according to my experience. It seems to me that oatmeal and cracked wheat illustrate most admirably the old adage that "what is one man's meat is another man's poison." Particularly in the summer season should the oatmeal be interdicted. In these cases I generally order a cup of weak mutton-, chicken-, or veal-broth to be given to the child as soon as he wakes in the morning, before he gets out of bed even; a good-sized tea-cupful is enough; of course, it must be warm. Then an hour or so later a little toasted bread or stale French bread. The crust of the long French roll is excellent, and children usually like it. With the toast or French bread may be given a cup of milk and a hard boiled egg chopped fine, to which may be added a little butter and salt, or, better still, a little cream, or, in place of the egg, a little broiled fish. Some children will object to the milk, and in such cases you will do well to prescribe Schweitzer's cocoatina, Cadbury's cocoa essence, or Fry's cocoa powder. Children, as a rule, like the cocoa or chocolate flavor, and do not object to the milk when so disguised.

At noon a dinner consisting of beefsteak, chop, a little bird, roast beef or mutton, not too much cooked, with meat gravy; but no made gravy or sauce is to be allowed. At night dry bread and milk. The broth, if not too rich, may be repeated at this meal. Some mothers think this a pretty limited diet, but you should vary it as much as possible, and give four or five small meals a day instead of three larger ones. As the excessive production of mucus in the stomach and intestine is to be overcome gradually

and by constant efforts, I endeavor to attain this result in two ways: first, by diminishing the production—that is, by regulating the diet; and, secondly, by clearing out the excess or over-production by means of cathartics regularly administered every third or fourth day. As cathartics I use the aqueous tincture of rhubarb, licorice powder (German), pil. rhei. comp., and occasionally the following powder: $\mathcal{R}$ Calomel, 1 part; pulv. jalap., 2 parts; pulv. scammony, 2 parts. *M.* To be given in syrup.

In mild cases the following recipe has often done good service, obviating the necessity of the regular administration of a cathartic: $\mathcal{R}$ Podophyllin, gr. j; alcohol, 3 j. *M.* Five to ten drops on a lump of sugar morning and evening. The indications for this are constipation, clay-colored stools, and loss of appetite. I do not expect to get a cathartic action from the remedy, for if it produces such an effect it must be used in smaller doses or abandoned altogether. It is to be given for two or three weeks, or even longer. Under its use I have seen the tongue clean, the appetite return, and follicular pharyngitis disappear completely. Under the above circumstances some physicians will order four or six grains of calomel; but as it is very unpopular treatment among many of the laity, I seldom employ it, particularly as other things seem to act as well. One word more in regard to the podophylline: If the patient should have two or three dejections a day, the dose must be diminished about one half. The good effect of the medicine is not seen for several days. After cathartics, alkalies are of next importance—the bicarbonate of soda or potassa, given in a bitter infusion, say cascarilla, chiretta, gentian, or columbo. If the mucous membrane generally is in a lax condition, to the foregoing bitter and alkali you may add a little tincture of myrrh. As it gives a disagreeable taste to the mixture (already disagreeable enough to the young patient), I would omit it from the prescription unless you consider that the patient really requires it.

The bitter is usually intensely disagreeable to children, and sometimes it is a difficult matter to get them to take it regularly; but if the mother understands the importance of the drug she will make the child take it. Tincture of nuxvomica or liquor strychniæ are sometimes useful adjuncts to the bitter infusion. They, of course, render it still more bitter. The objection to syrup is obvious. La Bourboule water you will often find useful. This is a natural arsenical water which comes from La Bourboule, Auvergne, France. The arseniates play the most important part in this water, owing to the powerful action which they possess in a small volume and in a proportional large dose, as they are found in the Bourboule water; no other mineral water known contains so large a proportion. Nowadays it is a favorite remedy with dermatologists; it is indicated in cases of gastro-duodenal catarrh where you find as a complication obstinate post-nasal and pharyngeal catarrh, and in patients who have the so-called herpetic diathesis, which shows itself by the familiar cutaneous lesions of certain forms of psoriasis, eczema, etc. It should be given warm, after meals, in quantities of one to three or four ounces three times a day, and should not be continued beyond three weeks. Its administration may be resumed after a fortnight.

As the child improves, a little iron may be added to the treatment, but of the milder forms and in very small doses. A little later many children bear cod-liver oil well. Wines, such as dry sherry or good claret, may be given with dinner. Baths are a useful adjunct to the treatment—I mean sponge-baths.

Original Communications.

PREMATURE DELIVERY FOR THE PREVENTION OF BLINDNESS.*

By EDWARD G. LORING, M. D.,
NEW YORK.

So far as I know, and so far as I have been able to inform myself by inquiries among my professional brethren, premature delivery for the sole purpose of preventing blindness has never, up to the present time, been performed, or even advocated.

In suggesting any new remedy, or remedial procedure, especially in so conservative an art as medicine, two things ought to be considered: first, whether there is any necessity for the remedy proposed, and, secondly, whether the advantages attending its adoption will outweigh the evil effects which existed before the remedy was suggested.

First, as to the necessity of the operation.

It has been long known that pregnant women, especially toward the end of gestation, were liable to suffer from a disturbance of vision, which might vary from the slightest deterioration to a total and permanent blindness.

Physicians were well aware of this fact before the true condition of retinitis albuminurica, or uræmic amaurosis, was known—that is to say, prior to the time of Bright, and long before the invention of the ophthalmoscope.

The fact, therefore, admitted, that possible, and, under some conditions, inevitable blindness may ensue, the question reduces itself to the simple inquiry whether premature delivery is ever justifiable either for the restoration or for the preservation of sight.

It appears to the writer that there are not a few cases in which it is not only justifiable, but where the true principles of sound practice demand its adoption.

The reasons for this belief will perhaps be better explained by the following cases, which are cited simply as useful examples of what may happen, and not unfrequently does happen, either directly or indirectly, in the experience of every physician and oculist.

The following case is reported by Mr. Robert Lee,† the particulars being furnished to him by Mr. Bowman.

On the 7th of December Mr. Bowman was consulted by a lady who was pregnant, and “who had rather suddenly lost her sight in great measure.” The urine was found to be excessively loaded with albumin. At Mr. Bowman’s suggestion the patient consulted Mr. Paget and Dr. West, who anticipated, Mr. Bowman says, as he did himself,

“that the confinement would be attended with convulsions of a dangerous character.” On the 9th of January, or one month later, the patient had a premature confinement of a male foetus which was still-born. The patient gradually regained her health and strength, but Mr. Bowman regrets to state that the sight has only partially returned.

The first thing which strikes one here is that there was a permanent loss of vision, and the question arises whether something might not have been done to prevent it. It is stated that on the 7th of December the patient had rather suddenly lost her sight, and, if there ever was a chance of saving it, it was by getting rid of the cause as soon as possible, as it is universally acknowledged by all oculists that the sooner the delivery takes place the better the prognosis for sight. Nothing, however, was done, notwithstanding the fact that the three attending physicians, all men of great eminence, had announced that they anticipated that when the confinement did take place it would be attended with dangerous convulsions.

No action, however, was taken, and the woman would have been allowed to remain blind to the end of her term unless nature had stepped in with a premature birth. At any rate, she was allowed to remain blind for an entire month with the urine loaded with albumin; and what a month’s delay under these circumstances will and often does produce in so delicate a tissue as that of the retina and optic nerve is too well known to need any comment. Would it not have been better practice, nay, was it not the bounden duty of the surgeons in a case in which a great degree of blindness was actually present, and danger to life anticipated, to have produced premature delivery and not waited for an entire month for the chance intervention of nature, and to have in the end to regret that “the sight had only partially been restored”? Does not the mere fact that the sight did partially return after the patient had lost it for a month show that if the delivery had taken place earlier there would have been every chance of its being fully restored? and is the sight of a woman in the prime of life of so little account that no effort should be made or no risk run to prevent it, especially when it is anticipated that later on there will be danger to her life itself?

The literature for the last half century, as everybody is aware, is full of such cases, and that related above is cited simply for purposes of illustration.

The following case by Mr. Lawson* is a sad example of the misery which may be entailed upon a patient by recurrent attacks of blindness occurring in successive pregnancies:

B. S., aged forty-one, applied to the hospital on December 2d of this year, suffering from the following amaurotic symptoms: She was the mother of nine children, six of whom were now living. She said that in the second month of her pregnancy with her *eighth* child her sight began to fail her, and continued to get worse until the termination of her pregnancy. She could then only see large objects; she could not count fingers, nor tell a man from a woman. She could merely see that something large was in front of her.

* Presented to the American Ophthalmological Society, July, 1882.

† “Medico-Chirurg. Trans.,” vol. xlv, p. 171.

* “Ophthal. Hosp. Reports,” vol. iv, p. 65.

After the birth of her child her sight began to improve, but not until after she had begun regularly to suckle it; and in three months' time she was able to read her Bible, the print of which was about the size of No. 10 Jaeger, and she could not only see to do needle-work, but actually did it. In this state she continued for two years, when she again became pregnant with her *ninth* child, and her sight at about the second month again began to fail her and continued to diminish until at the ninth month she could see no more than she did at the time of her previous confinement. After the birth of this child her sight only slightly improved compared with the improvement which followed the birth of the previous one. This she attributes to the fact of her being unable to suckle her child on account of her bad health. She regained, however, sufficient vision to be able to walk about unguided and to carry her child with her in the streets, and, although she could easily distinguish the faces of her friends, still she had not sufficient sight to be able to read or write. Eighteen months have elapsed, and she is now pregnant with her *tenth* child. The increased impairment of vision came on about the second month as on the two previous occasions, but her sight has failed her this time much more rapidly, and on that account she applied to the hospital.

She is now six months advanced in pregnancy, and the following is the condition of her sight:

Right Eye.—No perception of light; pupil fixed, and widely dilated.

Left Eye.—Is unable to count fingers, but at eight inches can just make out the hand; pupil dilated, but with a very slight range of action.

Examined with the Ophthalmoscope.—The optic entrance looks small, of a bluish pearly white; the arteries appear like mere threads, while the veins are very large.

She suffers now, and has suffered during her pregnancies, with pain at the top and back of her head. The least noise "seems to bewilder her," and she arises in the morning with headache. She has no loss of power in any of her limbs, but looks thin and haggard, having the appearance of one who has gone through much trouble.

A striking feature in this case, and one which is thought to be uncommon, though it is by no means so rare as is supposed, is that the vision began to fail so early in the pregnancy—that is, about the second month—and that it occurred in three successive pregnancies at this time. Now, notwithstanding this fact, and that with each pregnancy there was an additional and serious increase in the loss of the sight, the patient was allowed to go through three successive pregnancies until she became totally blind without an effort being made to prevent it. No wonder she looked, as the reporter of the case expresses it, "thin and haggard, having the appearance of one who has gone through much trouble." To be blind at forty-one with eight or ten children to look after is not a cheerful prospect for any woman. To be allowed to become so through a succession of years would seem, if possible, only to add to the misery. Other cases precisely similar might be cited here, as they are familiar to every accoucheur.

Such being the condition of affairs when matters are

left to themselves, it remains to be seen what occurs when interference, either natural or artificial, takes place, and in illustrating this I would briefly cite another case from Mr. Lee:

On the 29th of January, 1863, Mr. Lee saw a young lady in the third month of her pregnancy. She was suffering at that time from sensitiveness in the region of the uterus, sickness of stomach, and general nervous irritability; the pulse, however, was not very rapid, and there were no symptoms to excite alarm. On March 21st, or two months later, he received a note from Mr. Bowman desiring a consultation, as the patient had consulted him for defective vision. "The urine was loaded with albumin, and there was a destructive disease going on in the coats of the eye." As the patient was in the sixth month of her pregnancy, and as she seemed to be threatened with convulsions, and especially as these symptoms became urgent in the following three days, premature delivery was proposed by Mr. Lee, as he believed the affection of the kidneys and eyes arose from the pregnancy. Before, however, having recourse to this, it was considered proper to hold a consultation with Dr. Robert Ferguson, who thought it inadvisable to induce premature labor, "chiefly on the ground that the life of the child would necessarily be sacrificed, as the pregnancy had not advanced beyond the sixth month." It was determined, in consequence of this opinion, not to interfere, but to wait and see what course the disease would take. On April 10th, or three weeks later, there was an attack of convulsions; and, as these were sufficient to excite apprehensions that fatal puerperal convulsions would take place, it was considered proper, after a second consultation, that premature labor should be induced immediately. This was successfully performed, and, with occasional drawbacks, the patient continued to recover for the next ten days, when she could distinctly see the figures on the dial of a watch.

The happy result in this case and the restoration to vision were, it can not be denied, due to the induction of premature delivery, which removed the cause producing the loss of sight; and the only criticism to be made is that it was not induced as speedily as it should have been, since the operation was delayed until dangerous convulsions had already taken place, notwithstanding the fact that precisely this result had been anticipated, and in spite, also, of the fact that "a destructive disease was going on in the coats of the eye, and that the urine was at the same time loaded with albumin." Neither would it seem that the reason given for the delay—that the life of the child would be sacrificed—was a good and sufficient one, since, from the very nature of the trouble and the condition of the mother, there was every reason to suppose that, sooner or later, not only the life of the child was sure to be sacrificed, as it ultimately was, but also that of the mother would be imperiled. Here, too, the question narrows itself to whether the *possible* life of a sickly child ought to outweigh the probable loss of sight in the mother, and whether it is good practice, or even justifiable, to run such a risk.

A still more instructive case is reported by Brecht, of Berlin.*

* Graefe's "Archiv für Ophth.," B. xviii, Abth. ii, p. 111.

A woman, thirty-six years old, noticed in the third month of her sixth pregnancy a disturbance of her vision. In the fifth month, that is, two months later, she was seen by Dr. Brecht, who detected well-marked organic changes in the retina and optic nerve. The urine was highly albuminous. In October, or three months after the first notice of a loss of vision, eclamptic attacks took place, which lasted twenty-four hours, with a further reduction of vision to such a degree that the patient could not recognize persons in the room. After waiting some days, artificial premature labor was induced by the introduction of a catheter, which was accompanied by further convulsions. On the tenth day after the operation there was a manifest reduction in the quantity of albumin, and vision had improved to a considerable degree. Five weeks after the operation the vision in both eyes had returned to the normal amount ($V = 1$). A year later some of the ophthalmoscopic appearances still remained, while others had entirely disappeared, but the vision in both eyes was still perfect.

The result here, like that in the former case, is all that could be wished for; but the same question arises whether it would not have been better, from a clinical point of view, to perform the operation at the third month, when the loss of vision was first noticed, instead of waiting until the fifth, when convulsions had already set in, and which surely vitiated the prognosis, not only as regarded the preservation of sight, but also the life of the mother.

Brecht also reports a marvelous case of separation of both retinas during gestation, and where readjustment of both retinas took place after a premature birth, which occurred without any artificial intervention. Others have reported similar cases, and the restoration of vision after parturition in cases of kidney disease dependent upon gestation is so common as to need no comment.

In all the foregoing cases it will be noticed that no interference ever took place until the patient was actually suffering from some grave constitutional disturbance. The following case differs from those hitherto reported in the fact that no such disturbance was present at the time of the operation:

E. B., aged thirty-five, consulted me for failing sight. The patient was a married woman whose general health had always been good, the only departures from which condition were during her pregnancies. She had been married eight years, and had had three confinements in that time. Until within a short time of the birth of her first child she had had no loss of sight. She was, however, highly hypermetropic, and had been compelled on that account to wear glasses, especially for reading and sewing. She had never suffered any pain in her eyes, nor did she at the present time. She consulted me simply on account of failing vision. All other organs and functions seemed to be normal, and a careful examination as to heart, lungs, and kidneys gave no evidence of disease.

Her attention was first attracted to her eyes about two weeks before her confinement with her first child. She first noticed that she could not see people or objects when they were on the left side of the left eye. She stated that the trouble came on rather suddenly about two weeks before

her delivery, when she noticed a dimness of vision in this part of the field. This seemed to her like a bright cloud or mist, which was replaced in part at a later period by a broad dark band, which ran like a stripe across a bright ground. After her confinement the bright ground disappeared, not, however, until her menses reappeared. The dark band, however, remained, and no object could be seen when carried beyond a certain distance toward the left.

Just before her second confinement precisely the same thing occurred, and the dark band increased in breadth so much that she could not see objects with the left eye when she looked straight at them—in other words, central vision with this eye had begun to be affected; indeed, was so far gone that it was only by turning her head so as to bring the objects into the temporal side of the retina that they could be discerned at all. The “sight of that eye was nearly all gone,” but up to this time that of the right eye had remained unimpaired.

A short time before her third confinement precisely the same thing occurred in her right eye as had taken place with the left, and it was in regard to this that she came to consult me first, in October, 1879. This was three months after her confinement, and her vision began to fail two weeks prior to it. The patient was in much mental distress in regard to the loss of sight and the fear of approaching total blindness, and her bodily health was beginning to be undermined.

The examination of the eyes gave the following result: Vision was entirely gone in the left eye, with the exception of a quantitative perception of light in a narrow district of the inner field. Vision in the right eye was also so reduced that the patient could not, as she expressed it, tell the faces of her own children. She could barely count fingers at a few feet. In this eye, too, the field of vision was reduced at the outer side. That is to say, the nasal portion of each retina did not perform its function.

There was no improvement of vision with glasses. The ophthalmoscope showed that the media were perfectly clear. The optic nerve gave the picture of white atrophy of that peculiar kind in which the capillary circulation seems to have suffered the most. In neither eye were there any capillaries whatever to be seen upon the disc, while the larger vessels seemed to have preserved their normal condition as to size and course. The light streak upon the vessels was well marked, and there was no sign of any form of retinitis to be detected. Had it not been for the unmistakable and conspicuous whiteness of the disc, the fundus would have been pronounced normal.

As the case was a loss of vision incident to labor, careful and repeated examinations were made as to the condition of the kidneys as well as the heart and lungs. No trace of albumin was ever found, nor was there any other departure from a normal standard in any of the other organs.

The treatment consisted at first in the use of injections of strychnine, which were carried to the very verge of toxicological effects. Then the changes were rung on the mercurials, iodides, and tonics without the slightest avail, and at the end of a month vision was no better than at the beginning of the treatment. At the end of this time the menses

returned, and from that moment a gradual but decided improvement in sight took place, so that at the end of another month the patient could see with her right eye "to do almost anything." Tested accurately, the vision amounted to one third of the normal quantity ($V=\frac{1}{3}$). There was, too, a reduction in the field of vision, and objects situated at the right of the median line were not so clear as on the nasal side of the field. The patient was, after a little longer interval of surveillance in order to watch the case, dismissed, with a caution to guard against any imprudent use of the eyes, and a most emphatic caution and warning, at the risk of her sight if not her life, not to become pregnant again.

For the next eighteen months I saw no more of her, when she came to me in great alarm, because she was again "in the family way," and she feared, from what I had said and from her past experience, that if the child was carried to the full term she would become blind, and lose the entire sight of the right eye precisely as she had already lost that of the left. She informed me that she had already communicated the facts of her history, together with the warning I had given her, to her family physician, and, at his instigation, she had called upon me to obtain my opinion as to the necessity of a premature delivery. I then made an examination of the eyes, and found that since I had seen the patient not only had the vision not decreased, but had even improved, it being, at the time of the examination, April, 1881, two fifths of the normal against two sixths of the year before. I could only repeat the warning that I had already given—that is, that at each pregnancy there had, and always would be, not only danger to her sight, which, in my opinion, would inevitably be lost, but also that there was danger to her life. I reiterated this opinion when the family physician called upon me, and that I could see no escape if she was allowed to have another child, if not from death itself, at least from a doom that, in my opinion, was worse than death—that is, total blindness at an early age with three or four young children dependent upon her. I was led to this conclusion from the fact that it was absolutely undeniable that the loss of vision was dependent upon the advanced condition of gestation, that the attacks did not come on until just before the time of delivery, and that each attack had been followed by a loss of vision which had totally destroyed one eye and had threatened destruction of the other, from which there had been a marvelous, but at the same time only partial, recovery, and lastly, because during the past sixteen months, when the menses had been regular and the health restored, the remaining eye had not only not deteriorated, but had even improved in vision.

Premature delivery was produced on May 1st, when the foetus was three months old. There was considerable reaction after the operation, the patient remaining in delicate health all the summer. She returned to see me again in November, 1881, when she reported that, notwithstanding all the sickness incident to her miscarriage, her vision had certainly become no worse, and she thought a little better; and this was shown to be the case, for the vision had risen to a little better than one half of the normal amount against two fifths at the former examination. The ophthalmoscopic

examination showed, however, the same appearances as to paleness of the optic nerve and want of capillary circulation. There was not a capillary to be seen upon the disc.

This is, so far as I know, the first case in which an abortion has been performed where the most prominent if not the sole symptom was a loss of vision. It is, however, not the first case in which, in my opinion, it should have been done; and I think, if the importance of the matter were better appreciated, the necessity for it might appear more frequent than is supposed.* I have from time to time been consulted by women who have been confined within a shorter or longer period, and who have told me that they began to complain that their sight was becoming affected before their confinement, and that they had been assured by the attending physician that "it would come all right as soon as the child was born."

That it does come all right in some cases, or what appears to be all right, is often true, but there are many cases in which it not only does not come all right, but in which a deterioration of sight is sustained which may vary from a slight impairment to an absolute loss of all useful vision. It happens as a common occurrence to the oculist to hear the first complaint in failing sight referred by the mother to about the time she had her first child. White atrophy of the optic nerve is certainly a rarer disease in women than in men, but, according to my own experience, it occurs much more frequently in women who are married than in those who are not, and at a much earlier age.* I do not mean to say that in every case where atrophy is detected in a pregnant woman an abortion should be performed, but I do say that, where it has occurred in one confinement, every precaution should be taken to explain the dangers of future confinements to the patient, and that in extreme cases, such as the one reported above, premature delivery should be performed rather than let the mother go blind, or run the fearful risk of going blind.

If this is true in regard to the comparatively rare disease of atrophy, it is doubly true in albuminuria, so much more frequently found in pregnant women, and with which we so frequently find the so-called retinitis albuminurica.

Very little attention, even at the present day, I find, is paid by the general practitioner to the condition of the urine in pregnant women unless his attention is particularly called to it by some developments in the symptoms or some derangement in function.

In the larger medical centers it is true that some very careful physicians do make an examination of the condition of the kidneys from time to time, even if there are no manifestations which make it a necessity; and I have been informed by such careful attendants that, if any albumin is de-

* Since this case was reported at the Ophthalmological Society, my colleague at the Infirmary, Dr. Moore, has advised the induction of premature delivery for the preservation of sight in a woman who was eight months pregnant, and in whom vision was very much reduced and threatened to become extinct. At the time of the operation, the vision in the right eye was only equal to $\frac{1}{10}$ of the normal, and in the left eye there was only perception of light. There was retinitis in each eye, and the urine was loaded with albumin. After the expulsion of the foetus vision rapidly improved until it reached $\frac{2}{3}$ in the right eye and $\frac{1}{2}$ in the left—at which degree it remained permanent.

tected, a strict watch is kept upon the condition of the eyes, and, in case any complaint is made of the vision, a careful examination is obtained, oftentimes at the hands of an expert; and with one invariable result, no matter how serious the inflammation of the retina may be, and that is that the only course to pursue is to wait until the child is delivered, with the knowledge that the retinitis will subside as soon as the birth takes place, and with the hope that the delicate nervous elements involved will survive the secondary contraction and atrophy which will follow.

But it often happens that no complaint—not even the slightest—is made by the patient as to her eyes during the entire pregnancy, or at the time of her delivery, and yet a low stage of retinitis, or indeed one of great intensity, may exist. Indeed, the vision may remain perfect, or nearly so, for a long time, and only begin to fail long after the active signs of inflammation have passed away, and the secondary or atrophic stage sets in.

Thus, I have seen women who only began to complain of a loss of sight some four or five months after their confinement, since the subsidence of the first, or inflammatory stage, had been so slow, and the advance of the secondary, or atrophic stage, so insidious that the patients themselves have not noticed the gradual loss of vision until this has been considerably affected, which then admonishes them to seek the advice of an oculist. I have certainly seen if not many, still a goodly number of cases in which the patient herself did not attribute her loss of vision to her confinement, but to some ulterior cause, but where, from the ophthalmoscopic appearances, the undoubted evidences of a retinitis albuminurica still existed, and where a close questioning of the patient or her attending physician corroborated the fact that albuminuria had existed for a longer or shorter period before the confinement.

It may be, and no doubt will be, urged that the reason why no interference has taken place hitherto until the patient was actually suffering from some grave constitutional trouble which threatened life was, that such interference would be unjustifiable, both on moral and on legal grounds.

As for the moral aspect of the case, or what in some minds passes for such, I have neither the time nor the inclination to go into so wide a field of discussion. There may be physicians who, as physicians, even unrestrained by legal considerations, might think it right that the highest and most useful of all our senses should be sacrificed rather than that any interference with the workings of nature should take place. From a mere medical stand-point it is hard to conceive of such a thing, and that is all that interests us here.

From a legal point of view, it is also hard to conceive that there can be but one opinion, and that is in favor of the operation when the circumstances are such as demand it. The law states that premature delivery shall not be performed except for the preservation of the life of the mother or the child, and it is precisely for the "preservation of life" that it would be done when the eyesight is threatened, for the one is part and parcel of the other, and in operating to save the sight we are operating to save life. Thus, Simpson many years ago declared, and the opinion is universally

upheld at the present day, that symptoms such as headache, giddiness, derangement of sight, are merely premonitory symptoms of puerperal convulsions, and when these are associated with albumin we may be certain of the liability of our patient to the supervention of convulsions. Moreover, it so happens that these derangements of vision occur at a time when, as Graefe puts it, "the prognosis for life is even worse than for sight." Given, therefore, a pregnant woman, with loss of vision, or organic lesion of the retina or optic nerve, as the prominent, or even as the sole symptom, no one can say that a series of convulsions may not set in at any moment which will carry everything before them, including not only the life of the child, but also that of the mother.

There is another point of great importance, and that is, that where an attack of uræmic or albuminuric amaurosis occurs in one pregnancy it is almost certain to repeat itself in the following ones; and if the life of the mother has been threatened in the one case, and from which fate there has been a lucky escape, it may also be threatened in the following pregnancies, from which there may be no escape.

From the cases which have been reported above, and from the arguments based upon them, I would conclude:

1. That examinations as to the condition of the eyes of pregnant women should be made much more frequently than they now are; and that these should be made in a routine manner, even when the patient does not complain of any disturbance in vision, since it has been discovered that about one third, or thirty-three per cent., of those who have an organic lesion of the retina or optic nerve from kidney trouble either have none or make no complaint of any reduction of vision. This seems almost incredible to the general practitioner, but the ophthalmologist has become only too painfully aware how often, and for how long a time, eyes may be affected with an inflammatory process of great intensity and yet give rise to no complaint on the part of the patient. Thus, a retinitis or a neuro-retinitis, which, in its primary stage, may exist, and often does, for months unsuspected by either the patient or physician, may lead, after a long interval, through the secondary or atrophic state to complete blindness.

From the fact that no complaint is made of any loss of sight until near the end of the pregnancy, it has been assumed that the trouble did not begin until that time. I am inclined to think, however, that, while this is no doubt true, especially of the cases of uræmic origin, there are very many cases, especially those dependent on albuminuria, in which the trouble really began long before; and that the eyes, if examined, would often have given evidences of disease long, oftentimes months, before the explosion took place which has cost many a mother her eyesight, and oftentimes her life, both of which, by a timely examination and a timely operation, might have been saved. I will even go so far as to say that I believe that evidences of albuminuria not infrequently show themselves in the eye before any manifestation can be had in the urine.

It will be said at once that it is requiring too much of the general practitioner or obstetrician to suppose that he shall acquire the requisite skill to use so difficult and intri-

cate an instrument as the ophthalmoscope. That the ophthalmoscope in its widest sense is one of the most difficult of the instruments used for the detection of disease is, I admit, perfectly true, as it is that few obtain a perfect mastery over it. But the same is true of the microscope. To one great microscopist there are thousands who daily use the instrument with the greatest success in the detection of disease, and it might, with a little attention, be the same with the ophthalmoscope. Much as I admire the high standard of skill which some of those specially trained to its use naturally acquire, nevertheless, I firmly believe that the sphere of its greatest usefulness, and therefore of its greatest triumphs, will one day be in the hands of the general physician, and especially in those of the obstetrician. Thus, Mr. Eales reports that a single physician was able to furnish him for examination, from a single hospital in Birmingham, twenty-eight cases of neuro-retinal disease from kidney trouble in one year, while out of 11,000 cases of general eye disease at the eye infirmary only four such cases were seen.

2. I would conclude that where a marked deterioration of vision has occurred, with or without ophthalmoscopic changes, and where blindness is threatened, premature delivery is not only justifiable, but often demanded.

3. When a permanent loss of vision has occurred from a preceding pregnancy, premature delivery in a subsequent one, when surrounded by its proper safeguards, is not only justifiable, but at times absolutely necessary; and that, further, when a loss of vision, either temporary or permanent, has once resulted from gestation, it is the duty of the family physician or obstetrician to explain, both to the wife and husband, that the cause of the trouble is a constitutional and not a local one, and that there is every probability of recurrence of the trouble in succeeding pregnancies which may lead, not only to the destruction of vision, but even to loss of life.

CASES OF INTESTINAL CANCER.*

By FORDYCE BARKER, M. D., LL. D.,

PROFESSOR OF CLINICAL MIDWIFERY AND DISEASES OF WOMEN IN BELLEVUE HOSPITAL MEDICAL COLLEGE.

The following cases are narrated as possessing certain clinical features of interest:

In the *first case* the patient, a man, began to have pain in the right iliac fossa, at the caput coli, in February last. There was considerable swelling at the seat of the pain. Some nausea and vomiting occurred, and great prostration came on suddenly. As I was out of town at the time, the late Dr. James R. Wood was consulted, and came to the conclusion that there was some inflammatory induration and accumulation of feces at the caput coli. I saw the patient three or four days after the first attack. The tumor was then of considerable size. The patient was in bed, and the treatment was being carried out as recommended by Dr. Wood, namely, large injections of soap-suds, and ox-

gall and aloes as laxatives. It was said that the tumor had diminished very considerably, and the vomiting had ceased, but there was still a good deal of tenderness in the iliac fossa. I directed that the treatment should be continued, and recommended a poultice in addition, as there seemed to be considerable inflammatory action. The patient felt great relief from the use of the poultice. There was a good deal of jaundice, together with loss of appetite and a disposition to constipation, for which latter condition I ordered large doses of phosphate of sodium for three successive days. Large evacuations of fecal matter were thus procured, and a tumor only as large as one's thumb remained at the caput coli three days before I left the city for the summer, which was on the 2d of June. The patient, however, was cachectic and very easily fatigued, and I suspected some malignant disease of the intestine. He spent the summer out of the city, in comparative comfort, until the 3d of August, when he began to suffer from pain at the seat of the tumor, and to emaciate rapidly. The pain became extreme, and large doses of morphine were required to give relief. A few days before returning to the city, which was the 3d of October, a fistulous opening formed from the caput coli into the bladder, allowing of the passage of fecal matter and flatus through the urethra. When the patient arrived in the city I found that the tumor was as large as one's fist, irregular, and nodulated. He was suffering from nausea, which was probably due to the opiate; his appearance was extremely cachectic, and there was an odor about him suggestive of some putrid infection. There was no hæmorrhage from the bladder, nor was there any difficulty with urination. The bowels were pretty regular. Death took place on the 20th of October, sooner than I had observed in any previous case.

In the *second case* the disease dated back three or four years, and began at the sigmoid flexure of the colon and gradually extended, involving the bladder, the rectum, and the prostate. There was no fecal fistula into the bladder, but for a long time there was continuously more or less hæmorrhage into this viscus, causing great pain, and requiring the constant use of a flexible catheter. There was no vomiting except what might be ascribed to the use of opium. Dr. H. B. Sands saw this patient several times with me. Cachexia was not marked until a few months before death.

In the *third case* I did not suspect that the disease involved the colon; nor did Dr. Satterlee, who was the regular attendant. The patient was supposed to have cancer of the stomach and of the liver. There was persistent vomiting for many weeks, with great intolerance of food except that of the most bland, unirritating kind, given in small quantity. There seemed to be evidence of a tumor at the pyloric end of the stomach, but at the post-mortem examination this organ was not found to be involved. The cancer involved the sigmoid flexure of the colon, the peritonæum, the bladder, and the liver.

All three of these cases were characterized by very severe pain. There was a great difference in the comparative duration of the disease. In one case the first symptom dated back certainly not more than eight months before

* An abstract of remarks made before the New York Medical and Surgical Society, October 28, 1882.

death; in another it dated back three or four years. There was extreme emaciation in each case, coming on in the second case, however, only within a few weeks of the fatal termination. The first patient was sixty-one, the second sixty, and the third sixty-two years of age. Bamberger has recorded a case in which a woman fifty-seven years of age was first taken with vomiting and intense pain, etc., and he found a tumor of about the size of a pigeon's egg, not painful, in the right iliac fossa. Within four days the tumor had reached the size of the fist, and within four weeks the patient died of exhaustion.

I have notes of ten other cases of malignant disease that have come under my observation within the past ten years, involving either the ascending, the transverse, or the descending colon, and other parts, excluding the rectum. All these patients lived out of town, and I saw them only once or twice each, giving my opinion in a letter to their attending physicians. I requested in each of them that in the future I should be informed whether my diagnosis was correct or not. I received answers in regard to six, stating that my diagnosis was correct. Of the four others I have heard nothing. Had I made a wrong diagnosis, however, it is probable I should have been informed of the mistake.

It is a curious fact that, in every one of the thirteen cases of malignant disease of the intestines that I have known of during the past ten years, the disease occurred in men; in nine the part involved was the ascending or descending colon, in one the transverse; they were all patients over sixty years of age; each case was characterized by very intense pain. The German writers speak of pain as not being at all characteristic in these cases. I have frequently met with cancer of the uterus in which pain was either absent or due to some other cause. I have found this also to be true in some cases of cancer of the breast.

I have been asked if I had noticed any association between cutaneous disease and malignant disease of the intestine, the statement being made at the same time that certain authors had observed it; and I have likewise been reminded that, in the three cases related, one of the patients suffered from psoriasis, and the two others from eczema, one of them for many years. I have never had a case of primary cancer of the rectum in a woman, and only five cases in men, none of whom were my own patients. Pain was not a characteristic symptom in any one of them.

In this connection I will mention two cases of primary cancer of the omentum in women. In the *first case*, when I saw the patient she was in the most intense suffering. The bladder and the bowels had not been evacuated for three days. On examination, I found a tumor filling the pelvic cavity, the nature of which I could not determine. I was unable to feel the uterus. I then put the patient under the influence of chloroform, placed her in the knee-chest posture, and succeeded with some difficulty in introducing the whole hand into the rectum. After pushing the entire mass above the brim of the pelvis, I introduced a catheter and drew off a large quantity of water, but I was still unable to decide positively what the nature of this tumor was. I was satisfied, however, that it was not the uterus, not the ovary, and probably not the kidney. The

patient had a similar attack about one year after, in London, when certain physicians saw her whose names I do not remember; and then Mr. Spencer Wells was called in, who, without knowing anything of her previous history, adopted the same procedure which I had resorted to before. Sir William Jenner, who was associated with Mr. Wells afterward, also made a careful examination, but neither of those gentlemen was able to determine the character of the tumor absolutely. Mr. Wells, with the concurrence of Sir William Jenner, then made an exploratory incision, and found cancer of the omentum. After that the lady was comparatively comfortable, but a railway journey brought on a peritonitis, from which she died a few weeks afterward. At the autopsy there was found to be cancer of the omentum, which also involved the ovaries and adjacent tissues.

In the *other case* the disease had also involved the liver and the peritonæum. In both cases there was ascites. The first patient was tapped eight or ten times before death occurred. In the first three cases of cancer of the intestine, already mentioned, there was no abdominal effusion, which is opposed to the statement made in the books, that cancer of the intestine is very generally accompanied by ascites. I have, however, seen ascites largely developed in cases of cancer in which the disease involved the rectum, the prostate, and other adjacent structures, and I once made the diagnosis of malignant disease in the pelvic cavity mainly because the patient had phlegmasia dolens.

SUTURES IN GYNÆCOLOGICAL OPERATIONS.

By JAMES B. HUNTER, M. D.,

SURGEON TO THE WOMAN'S HOSPITAL, ETC.

FOR many years past I have been accustomed, in common with the other surgeons of the Woman's Hospital, to the use of silver wire in nearly all the ordinary gynæcological operations. The wire used has been manufactured of chemically pure silver, the sizes being Nos. 26, 27, and 28. No. 26 has been used for operations on the perinæum; 27 for the cervix; and 28 for fistulæ and the more delicate operations. In closing the abdominal wound after ovariectomy I have always used silver wire, No. 26, and have generally seen it used, though some operators prefer the ordinary carbolized silk, which seems to answer perfectly for that purpose. From time to time I have experimented with sutures of other material than silver for the perinæum and cervix. Catgut I have not found always reliable. Besides yielding before union was perfect, it was sometimes, no matter how carefully prepared, liable to be followed by slight ulceration. Silk thoroughly carbolized answers fairly for operations on the perinæum, vagina, and cervix, but it has a tendency, especially in subjects who are anæmic, or imperfectly nourished, to cause ulcerative action in its own track. I have closed a lacerated perinæum with common linen thread, carbolized at the time it was used, and obtained perfect union without the slightest ulceration. I have often used ordinary twisted silk for the perinæum, and have occasionally used it for the cervix, with satisfactory

results in both. In closing a perinæum immediately after laceration I always prefer the silk suture. It causes no pain afterward; it is quite firm enough to keep the recently torn surfaces in apposition; and its removal causes the patient no discomfort. These remarks apply to the partial rupture of the perinæum; where the sphincter ani is torn, I should give a decided preference to silver over any other material for sutures. I have lately done several operations on the perinæum and cervix with what is known as silk-worm gut, as prepared for fishing purposes, which I had seen Dr. Emmet use for closing the abdominal wound after ovariectomy. It is a fine, transparent suture, ties easily and securely, and can be withdrawn with ease; but it has a greater tendency to cut than either common silk or silver wire, and, even when carefully carbolized, does sometimes cause slight ulceration. This tendency to cut is probably explained by the fact that a transverse section of this suture shows it to be very irregular in shape. It is occasionally round, but generally either flat or triangular, with sharp cutting edges. It is rendered somewhat softer by soaking in warm water, but very hot water roughens its surface and makes it unpleasant to work with. From my present experience with it I think its employment should be limited to cases where there is not much tension on the sutures, and where it is desirable to use a suture of small caliber. It has the advantage of causing little or no pain while *in situ*, or while being withdrawn.

The advantages of silver wire over all non-metallic sutures are:

That it is perfectly clean and aseptic.

That by its rigidity it gives a desirable support to the parts while union is taking place.

That, being secured by twisting, it may, with the utmost nicety, be made to exert the precise degree of pressure desired, and may be loosened if it has been too tightly twisted.

That, by molding it with the point of a tenaculum at the points of entrance and exit, the exposed border of the suture may be made a straight line, from which the wire penetrates the tissues at right angles, and is, therefore, less likely to cut at those parts. Before thus bending the suture it is a circle, as in Fig. 1. Afterward it has the form shown in Fig. 2. The latter form gives a better support to the



FIG. 1.

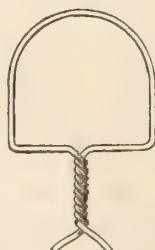


FIG. 2.

parts, especially in operations on the perinæum and vagina. It also presents itself in such a manner as to be easily seen and reached by the scissors when it is necessary to remove the sutures.

A minor objection to the silver wire is its expense; but

even if this were not more than compensated for by its advantages, it is always practicable to employ wire of soft copper, silver-plated, which answers very well, and is much less expensive. I once had some wire made of pure gold, and used it in place of the silver. It was no better in any respect than that made of silver; and, after a pretty large experience with various sutures, I consider silver the best material for use in nearly all gynecological operations.

2 EAST THIRTY-THIRD STREET.

CASE OF ISCHIO-RECTAL ABSCESS CURED WITHOUT THE FORMATION OF A FISTULA.

By CHARLES B. KELSEY, M. D.,

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THE patient, a professional man, aged thirty-seven years, had been suffering for several years from large internal hæmorrhoids which bled freely. For some weeks before sending for me he had been under the care of an irregular specialist, who had been following out some plan of local treatment for this condition, the nature of which the patient did not understand. Although there was some decrease in the amount of blood lost, his general condition became far from satisfactory. Though naturally a large, healthy man, and accustomed to hard mental work and abundant exercise, he began to suffer from lassitude, loss of appetite, and emaciation. Finally, a hard mass was felt in the right ischio-rectal fossa, which caused him a good deal of pain, and after this had lasted five days he sent for me.

Examination.—A hard, brawny, painful swelling completely filled the right fossa. The skin over it was red and hot, but there was no fluctuation. There had been a chill, some fever, and complete loss of appetite, with a good deal of rectal tenesmus.

Operation.—The patient was etherized, and a deep incision made into the swelling. Although the cut was made over the most prominent portion of the mass, it failed to reach pus, being too far out upon the buttock. A longer, straight knife was again entered within half an inch of the margin of the anus, and carried steadily upward, parallel with the bowel, about four inches. The blade was turned in its track occasionally as it was entered, to allow of the escape of pus as soon as it was reached, but none appeared till the depth mentioned was arrived at. After pus was found, the knife was withdrawn, making an incision fully three inches long at the surface, in an antero-posterior direction. Into the opening thus made the finger was passed till it reached the abscess cavity, and all partitions were broken down. This part of the work was done very thoroughly, and the original incision was made still longer, so that future burrowing might be avoided. A solution of carbolic acid was then injected into all parts of the wound, and the cavity was dressed with lint soaked in carbolized oil (1-12). After this the sphincter was dilated, and several large hæmorrhoidal tumors were removed. The dressing thus introduced was allowed to remain undisturbed for three days, when it was removed and a similar one replaced; after a thorough washing out of the wound and the introduction of

the finger into all parts of it. The patient was kept strictly in bed, and the bowels confined for one week with medicine, at the end of which time they moved easily and painlessly after a dose of salts.

The operation was performed July 5th. On September 15th he was entirely well, the wound having completely closed. This time might have been shortened a good deal had the patient not been obliged to be up and about his business during the latter part of the time the wound was healing. He was seen two months later, and was "as well as he had ever been in his life."

This case illustrates exceedingly well several points in rectal surgery. As to the causation of the abscess, it can not be positively stated whether it was the result merely of his general depreciated condition, whether it was the result of direct injury while undergoing some secret treatment for hæmorrhoids, or whether it was purely idiopathic. Whatever its cause, the condition was one which certainly would have ended in a deep fistulous track opening high up into the rectum, above the internal sphincter, had not this particular operation been performed. It is safe to say that had this abscess been left to its own course, or had it been opened in the usual way—that is, by making an incision just large enough to fairly evacuate its contents—the subsequent history of the case would have been entirely different. The fistula which would have resulted would have required a deep incision, involving both sphincters, for its cure, and such an incision is exceedingly apt to be followed by incontinence of fæces. The case is one of a class which, left to the course of nature, often work irreparable injury—injury which may render the patient's whole subsequent life one of suffering in spite of any future surgical procedures—and yet, if treated promptly and efficiently, may be brought to a very happy termination. It is the kind of case in which a single day's delay may be ruinous to the interests of the patient, and for that reason alone I have thought it worthy of special note.

"THE MADISON," 25 MADISON AVENUE.

Clinical Reports.

WOMAN'S HOSPITAL.

Reported by ANDREW F. CURRIER, M.D.

(SERVICE OF DR. THOMAS ADDIS EMMET.)

CYSTITIS OF LONG STANDING.

M. B., unmarried, a native of Germany, forty years of age, was transferred to Dr. Emmet's service from the service of another surgeon in the Woman's Hospital in the early part of the summer of 1881. She began to menstruate at sixteen years of age; is regular, the quantity is normal, the duration is from two to three days. Before the flow is established she suffers from headache and backache. There is profuse leucorrhœa, walking is very painful, and the pain in her bladder is intense. This was her history upon entering the hospital. She was placed upon the regular treatment, viz., vaginal injections of carbolized hot water twice daily, and also received extra diet and anodynes as required. The latter were called for rather frequently, especi-

ally at night. The first operative procedure consisted in making an artificial fistula in the urethra, the edges of the vaginal and urethral mucous membranes being stitched together on either side, thus preventing the closure of the fistula, and forming what Dr. Emmet calls a *button-hole fistula*. This procedure did not give the relief which was anticipated. After being transferred to Dr. Emmet's service, a Goodman's catheter was introduced, which she continued to wear with comfort for some time. September 20, 1881, the observation made was that the edges of the fistula were thickened, and a forty-grain solution of nitrate of silver was frequently applied. October 19th, the catheter was removed. October 24th, Thomas's anteversion pessary, *reversed*, was inserted into the vagina, to keep the edges of the fistula apart. November 15th, the excess of mucous membrane in the urethra was drawn down, and, after being freshened, was stitched to the edges of the fistula. The parts united, but the patient continued to suffer. December 12th, a further removal of hypertrophied mucous membrane of the bladder was made. December 27th, the bladder being, to all appearances, in a healthy condition, the fistula was closed. The attempt was unsuccessful, as were similar attempts February 2d and March 17th. May 2d, a fourth attempt was made, and was entirely successful. The patient remained in the hospital until June 5th, and, as there was then no evidence of a return of the cystitis, she was discharged.

Remarks.—Here is a case of a disease which is usually both intractable and very painful, which was, to all appearances, cured. The woman was of an hysterical temperament, and bore pain badly. There was no doubt in the matter, therefore, when she said that she was relieved. The elements in bringing about the good result were chiefly three: 1. The rest afforded to the bladder by the fistula. 2. The dilatation of the urethra by the catheter, which was worn a long time. 3. *Probably* the stimulus to the circulation and nutrition of the parts produced by the several operations. Why four operations should have been necessary to close the fistula we can not say.

VESICO-VAGINAL FISTULA.

Mrs. E. McC., aged forty-one, a native of Scotland. This case was reported in vol. xxxiv of this journal for 1881, p. 175, as far as the conclusion of the second operation, which had failed in closing the fistula entirely. The patient's paralysis had disappeared, her general health had become excellent, and the suspicious symptoms of pyelitis, or of inflammation of the ureters, no longer threatened. October 11th, Dr. Emmet closed the small fistula which remained. The tissues were now so much improved in their tone that it was strongly hoped that a favorable result would follow the operation, which was borne by the patient without an anæsthetic. It was a failure, however, as were also other attempts made December 1st, January 24, 1882, and February 28th. March 28th, after preparing the edges of the fistula, two incisions upon the lateral walls of the vagina were made, with the view of relieving the tension of the sutures with which the wound was closed. This expedient also failed. The edges of the wound seemed to have lost their vitality, and until the next operation they received occasional applications of solid nitrate of silver. May 16th the operation was repeated, and incisions were made parallel to the line of sutures, in hope of relieving the tension. May 30th the sutures were removed, and the union was found to be good. The sigmoid (Sims's) catheter was allowed to remain yet a day or two in the bladder. [It will be remembered that it is the custom to use this catheter, which is made of block-tin, sigmoid in shape, after fistula operations at the Woman's Hospital, so that the urine drains away as soon as it reaches the bladder. The bladder, therefore, can not become distended, and weaken the line of

union.] June 13th, the bladder holds water, but is very irritable and painful. Washing it out daily with a warm saturated solution of boric acid allayed the trouble in a few days. June 29th, as the hospital was about to be closed for the summer, she was discharged.

LACERATION OF THE CERVIX UTERI; CELLULITIS AND CYSTITIS.

Mrs. C. H., aged thirty-four, a native of Germany. She has been married nine years, has had four children, and one miscarriage. She has been sick since her last labor, suffering from leucorrhœa and pains in the bladder. Occasionally catheterization has been necessary. She entered the hospital September 14, 1881, and began at once to be treated with hot vaginal douches, and applications of Churchill's tincture of iodine to the vaginal vault three times weekly. September 26th, the uterine canal was curetted, and a quantity of fungosities was removed. [This operation is usually done *under ether*, as it is apt to be very painful.] February 14, 1882, the cellulitis had disappeared, and Dr. Emmet closed the laceration of the cervix to-day. The operation was not entirely successful; there had been some sloughing upon the left side of the cervix. May 1st, the patient is exercising freely out of doors. Her chief complaint now is in connection with her bladder. May 8th, she has been ordered to drink a pint of infusion of *triticum repens* daily. May 26th, the bladder is still troublesome. It is washed out daily with a solution of sulphate of zinc, six grains to the ounce. May 31st, she was discharged greatly improved.

Remarks.—This case is interesting for various reasons. We see illustrated here the value of the *preparatory treatment*, as it is called by Dr. Emmet, in getting rid of that painful trouble, pelvic cellulitis. Even so skillful an operator as Dr. Emmet fails of success sometimes in his operations upon the cervix. This should encourage those whose first attempts are not followed by the results which they had hoped for. If the operation wound does not heal by first intention, which is the rule, the next best thing is to bring about union by frequent applications of a forty- or sixty-grain solution of nitrate of silver. The bladder complication is interesting, as introducing therapeutic elements additional to those given in the preceding cases.

Book Notices.

On the Morbid Conditions of the Urine dependent upon Derangements of Digestion. By CHARLES HENRY RALFE, M. A., M. D., Caius College, Cambridge, Assistant Physician to the London Hospital, etc. London: J. & A. Churchill, 1882. Pp. viii-148.

THE title of this book is in some degree a misleading one, since, instead of laying chief stress upon laboratory examinations of morbid urines, Dr. Ralfe has really given us an excellent clinical treatise on various forms of dyspepsia, with scarcely a word of analytical methods; a treatise addressed rather to the practicing physician than to the student of chemical manipulations.

An introductory chapter considers the sources of acid in the body and the channels for its elimination, leading to a classification of acid dyspepsias into those arising from over-secretion of hydrochloric acid; those from fermentative changes generating organic acids; and a third category wherein both factors combine—the excess of hydrochloric acid arresting digestion, and thus indirectly inducing the formation of lactic, acetic, and butyric acids. The alkalinity of the blood, despite the introduction of acid from without and its greater generation within the body, is ascribed chiefly to the preponderance of sodium

bicarbonate, which, though an acid salt, has an alkaline reaction, but also to the conversion of the salts of the vegetable acids into alkaline carbonates. To the withdrawal of these vegetable acids is exclusively imputed the pathogeny of scurvy, some other alkaline salts (principally the alkaline phosphates) being retained instead of excreted. In four places we find it laid down as an indisputable fact that the sole cause of scurvy is the deprivation of succulent fruits and vegetables—a statement which needs further consideration in view of the observations of Arctic explorers, which tend to show that fresh food of any kind, animal as well as vegetable, is an efficient antiscorbutic, as exemplified most markedly in the case of the Esquimaux, whose food is strikingly deficient in the matter of fruits and vegetables.

Chapter II treats of dyspepsia usually associated with an acid condition of urine, and gives certain data toward a differential diagnosis between the acidity of over-secretion and that of fermentation, the urine in the former case showing, in general, increased acidity with deposition of uric acid and urates, though subject to great variations in this respect from time to time, while in the latter case there is diminished acidity, or even alkalinity, of the urine, with a tendency to deposit oxalates or phosphates. It is, however, admitted that either of these forms of acid dyspepsia may give rise to the other, and that in the not infrequent instances where both coexist it is difficult to determine which was the originating cause, or which is the preponderating condition, the latter being only discoverable by ascertaining "the nature of the acid present in the vomit." But, as we are expressly told that in fermentative dyspepsia vomiting is of rare occurrence, the test above mentioned loses some of its practical value. In the author's etiology of over-secretion of acid, malaria plays a part second only to that of gout.

Flatulent dyspepsia, usually associated with neutral or alkaline reaction of urine, is considered in Chapter III. Here urinary alkalinity is imputed solely to excessive elimination of the carbonates of sodium and potassium, arising from three causes: "General debility and the feebleness with which the respiratory act is performed, leading to the accumulation of carbonic acid in the system"; diminished secretion of bile, which is the chief secretion by which alkaline salts are removed from the body; and the oxidation of the acids formed by fermentative changes into carbonic acid, which forms carbonates with the bases of the alkaline oxides, and thus increases the alkaline reaction of the blood.

Chapter IV is devoted to derangements associated with deposits of uric acid, and here the author takes issue with many pathologists as to the origin and significance of this deposit. He believes that "the probable antecedents of uræa in the blood are partly the kreatin formed in muscle and elsewhere, and partly the leucin and other like bodies formed in the alimentary canal," and doubts if uric acid is to any extent a measure of defective oxidation of albuminous substances, or, indeed, if it bears any definite relation to uræa. He ascribes a deposit of uric acid from the urine or in the tissues rather to its insolubility than to its excessive production in the system, and refers its precipitation chiefly either to concentration or acidity of the urine, or to its accumulation in the urinary passages, so that a considerable discharge of it "does not represent the amount separated from the system within a period of twenty-four hours." He thinks, however, that a more or less persistent excess of uric acid with high specific gravity, but undiminished quantity of urine, "is a prelude to some serious organic mischief"—often strumous or tubercular. Of the relation of the "uric-acid diathesis" to gout he is more than skeptical; and he does not attach much importance to the occasional deposits of uric acid in diabetic subjects. The influence of an excessive animal diet in inducing

gout is attributed rather to increased tissue metabolism, leading to degenerative changes, than to augmented production of uric acid; and the arthritic agency of alcoholic beverages is assigned almost wholly to the sugar which they contain, a secondary rôle, however, being played by their percentages of acids and acid salts. Thus it will be seen that the doctrine of "lithæmia" finds no place in the philosophy of the author, who regards uric acid "as a consequence, and not a cause, of the manifold disorders to which it has been said to give rise."

In the following chapter the origin and significance of oxalic-acid deposits are discussed, and the diversity of opinions on this subject, as taught by different writers, is explained by the statement that such deposits occur in two distinct classes of urines: "The one of deep yellow, or orange color, of high specific gravity, usually containing an excess of urea and phosphoric acid, and turbid with mucus and urates," in which case oxalate of lime may be formed, after emission, from decomposition of uric acid and urates, or from oxidation of pigmentary matters and mucus. "The other pale, of a citron-yellow or greenish hue, of medium specific gravity, and perfectly clear except at the bottom of the urine-glass, where a slight cloud of mucus is collected, and in which deposited oxalates will be found," associated here with the dyspepsia and hypochondriacal symptoms belonging to Golding Bird's typical "oxaluria," and arising, in the author's estimation, from excessive fermentative production of lactic and butyric acids, and their imperfect reduction into carbonic acid, so that "the intermediate acid—oxalic—appears in the urine in combination with lime." Of course, the various extraneous sources of oxalic acid, from food or drugs, are taken into account. In cases of oxalic calculi it is observed that the acid may have its origin in the mucus of the urinary passages, indicating a local rather than a systemic derangement.

The final chapter deals with the very uncertain problem of phosphaturia; not the mere presence of crystals of triple phosphate from ammoniacal fermentation of the urea, due to local vesical catarrh, but the persistent excessive elimination of phosphoric acid in cases attended by grave constitutional depression and polyuria. After reviewing the unsatisfactory literature of this subject, the author feels only warranted in expressing the avowedly vague conclusion "that increased excretion of phosphoric acid is met with in those states of the system which we characterize as 'nervous,' and that it is often met with accompanying or preceding diseases in which disorder of nutrition is usually well marked."

An appendix contains some original observations on the effects of bicarbonate of potash upon the acidity of the urine, demonstrating that "the administration of an alkaline bicarbonate on an empty stomach increases the acidity of the system, while its administration after a meal diminishes it." Clinical remarks on the symptomatology and treatment of the different morbid conditions described are given in their respective chapters, and will doubtless possess most interest for the average practitioner.

Despite a slovenly style, marred by repetitions, by ambiguity, and sometimes by grammatical solecisms, Dr. Ralfe's book contains more food for thought—perhaps we may add more material for debate—than most of the recent issues from the medical press. Some of his speculations are rather in advance of our demonstrable knowledge of physiological chemistry; but every page shows him to be a clear reasoner and close observer, whose views are worthy of consideration.

A Treatise on the Practice of Medicine, for the Use of Students and Practitioners. By ROBERTS BARTHLOW, M. A., M. D., LL. D., Professor of Materia Medica and General Therapeu-

tics in the Jefferson Medical College of Philadelphia, etc. Third edition, revised and enlarged. New York: D. Appleton & Co., 1882. Pp. xx-918. [Price, cloth, \$5; sheep, \$6.]

We congratulate Professor Bartholow most heartily on the appreciation with which the profession have received his very compact and straightforward text-book. That this reception has not been due to any artificial impression produced by laudatory reviews is shown by the fact that the second edition was called for within a month after the first issue of the book, comprising three thousand copies—at a time, therefore, that must have antedated any such notices. The continued popularity of the work must, as a necessary result, be doubly gratifying to the author. Indeed, so far from his having been helped along by unmerited praise, his energetic utterances concerning "therapeutic nihilism" rather led his early reviewers to caution their readers touching his undue confidence in medication. In face of this criticism, Dr. Bartholow has stood sturdily to his statements, and now feels fortified, as he tells us in his preface, by letters received by him from various correspondents, giving their favorable experience with the methods of treatment laid down in the book. Still more to his credit is it that, while expressing his gratification at this state of things, he calls upon his readers to make known any opposing experience that may have fallen to their lot.

There is now no question, it seems to us, that for a book giving a succinct guide to pathology and therapeutics, as applied to the actual practice of medicine, Dr. Bartholow's is unexcelled. It seems to embody a continuation of the good work which the late Dr. Anstie began, of rousing the English-speaking profession from the apathy into which it had fallen in regard to therapeutics, while at the same time it presents the present state of our knowledge of nosology, pathology, and diagnosis in a readable and telling way, wasting no space in padding, but going straight to the practitioner's needs. Of such books there are too few, and we trust that Dr. Bartholow will frequently be called upon to revise and extend his work.

Materia Medica and Therapeutics. Inorganic Substances. By CHARLES D. F. PHILLIPS, M. D., M. R. C. P., late Lecturer on Materia Medica and Therapeutics at the Westminster Hospital Medical School. Edited and adapted to the United States Pharmacopœia by LAURENCE JOHNSON, A. M., M. D., Lecturer on Medical Botany, Medical Department of the University of the City of New York, etc. Two vols. New York: William Wood & Co., 1882. Pp. xii-298; vi-340. [Wood's Library of Standard Medical Authors.]

THIS work concludes the treatise, of which the first part was published in the same series in 1879. Among the several really excellent works which appeared in that initial series we must confess that Dr. Phillips's book, devoted to a consideration of those drugs which are derived from the vegetable kingdom, made but a sorry show, so that the reader would have been quite content that it should end then and there. But we are pleasantly disappointed in this second part, which takes up inorganic substances. Aside from the improved binding and typography, the volumes themselves are more thorough and readable. Although it can not be regarded as in any sense an original work, and although it is too diffuse for the ordinary reader, the author is right in stating, as he does in his preface, that pharmaceutical chemistry, materia medica, and therapeutics should be introduced in a natural sequence, instead of being considered separately in treatises devoted to those subjects.

At the beginning of each section he gives a concise statement of the chemistry of each drug, then follows its physiological action, including the toxicology, and finally its therapeutic appli-

cation. There are additional paragraphs on idiosyncrasy, and on synergists and antagonists, the latter being closely modeled after Bartholow. Were we to criticise the work as a whole, we should say that the author might have condensed his discussions of experimental physiology by confining himself more to important investigations and devoting less space to side-issues. The therapeutical part of the book is altogether too prolix, and the reader can not but contrast it with the brief, conservative utterances of Wood. Doubtless our English brethren have more faith in the efficacy of drugs than we, for how otherwise could Dr. Phillips have given four pages to a consideration of the sovereign virtues of calcium sulphide?

There is a strong suggestion of Ringer in this chapter. Gynecologists in this country will remark with surprise the long list of remedies stated to be of value in their department. In five instances uterine fibroids have disappeared under Dr. Phillips's observation by the use of injections of iodine. Even ovarian cysts diminish in size with five- to twenty-grain doses of potassium bromide (!). We have not been so fortunate in the medicinal treatment of pelvic troubles.

We have not the space in which to consider this work in detail, which is to be regretted, as it contains some excellent chapters. We commend in particular, as being thorough and instructive, those on iodine, water (in which is a judicious statement on balneology and its value), arsenic, and mercury.

The paragraphs on preparations and dosage are placed at the end of each article, and are not arranged as clearly as we could wish. The method of Bartholow seems to be preferable. Neither do we see any advantage in substituting the Arabic for the usual Roman method of notation. An entire absence of reference to the metric system is noticeable, since most modern treatises on therapeutics defer to the growing idea that this is to be the system of the future.

In conclusion, it may be said of Dr. Phillips's book that, while it does not fill any long-felt vacuum in this department of medical literature, it is clear and readable.

Essentials of Vaccination; a Compilation of Facts relating to Vaccine Inoculation and its Influence in the Prevention of Small-pox. By W. A. HARDAWAY, M. D., Professor of Diseases of the Skin in the Post-Graduate Faculty of the Missouri Medical College, St. Louis, etc. Chicago: Jansen, McClurg & Co., 1882. Pp. 146. [Price, \$1.]

For a long time the profession in this country have felt the need of a concise manual of the practical points connected with vaccination, a subject concerning which there are few who are not likely to profit by such a book, combining the essentials of the practice of vaccination with so much of the underlying facts and theories in regard to the varioliform diseases as may be required to fix the practical part of the matter in their minds. It was on all accounts desirable that such a task should be undertaken by one well versed in dermatology, and at the same time well informed as to the work that has been done of late years by those who have been engaged in the experimental study of vaccination, particularly animal vaccination. Precisely such a person is Professor Hardaway, and, in our opinion, the profession is indebted to him for a most excellent little work. Not that we agree with him on all points; but we can say, without the slightest reserve, that his book comes as near to a faultless presentment of the subject with which it deals as is possible in the present state of our knowledge.

The ten chapters of which the book is made up treat respectively of the history of vaccination, of variola in animals, of the nature of vaccinia, of vaccinia in the human subject, of abnormal modifications and complications of vaccinia, of revac-

cination, of the merits of different kinds of vaccine virus, of the methods of obtaining and storing vaccine virus, of the operation of vaccinating, and of the objections to vaccination. Under each of these heads the author displays a ripe knowledge of the subject, a simple and attractive style of presenting its salient points, and an intelligent appreciation of what has been done by others in the same field. The book certainly deserves to be read by every member of the profession, and we trust that it will meet with a wide circulation.

Diseases of Memory: an Essay in the Positive Psychology. By TH. RIBOT, Author of "Heredity," etc. Translated from the French by WILLIAM HUNTINGTON SMITH. New York: D. Appleton & Co., 1882. Pp. 209. [International Scientific Series.]

In this volume the author presents for our consideration two forms of memory. First, organic memory, in which actions are reproduced without the element of consciousness. Second, psychological memory, or that in which the element of consciousness is indispensable.

Although the writer's views are interesting, and are seductively expressed, we are hardly prepared to agree with him in the theory that memory may be organic. The classification of this form of memory embraces all those unconscious acts which individuals perform while suffering from certain forms of epilepsy, or else under the influence of sleep, and also all co-ordinate muscular movements, such as are made in walking, running, swimming, etc.

This theory seems to us to be untenable unless the seat of memory may be supposed to reside, to a certain extent, within the cerebral ganglia and spinal cord—a supposition which the author does not admit for a moment. Motor impulses to all unconscious and to all so-called automatic impulses must originate in the cortex of the brain. After the impulse is once generated the unconscious movements may be, and are, continued by the action of the cerebral ganglia and spinal cord without the cortex participating to any extent whatever. That this is the case with horsemen who maintain their equilibrium in the saddle while asleep, and with individuals when running, walking, etc., is undoubted. The explanation of those cases of epileptic vertigo in which persons perform certain apparently unconscious actions has never been satisfactorily stated. The author, however, is of the opinion, as expressed in the first part of his chapter on general amnesia, that in the majority of these cases a very weak form of consciousness does exist. Thus does the writer himself exclude the epileptic variety of organic memory from his classification.

With this exception, the monograph is excellent. As the author states in his preface, "The phenomena of memory have never been investigated from a pathological stand-point." This he has successfully attempted, and the ensuing chapters are not only exceedingly interesting, but convey their meaning in a clear and concise manner.

Essays on the Floating Matter of the Air in relation to Putrefaction and Infection. By JOHN TYNDALL, F. R. S., etc. New York: D. Appleton & Co., 1882. Pp. xix-338.

PERHAPS no one man has done more to put antiseptic surgery on its present firm basis than Professor Tyndall, and from this little work the reader may gain a clearer insight into the fundamental facts on which that great advance in our art rests than from any other single book with which we are acquainted. The importance of thus getting at the real philosophy of the antiseptic system of treatment can not be over-estimated, for he who best understands it will most successfully carry out its practical application.

Florida for Tourists, Invalids, and Settlers, etc. By GEORGE M. BARBOUR. With map and illustrations. New York: D. Appleton & Co., 1882. Pp. 310.

WHILE Mr. Barbour's book is not obtrusively, or even largely, sanitary in its scope, it yet gives such an intelligible picture of Florida as a health resort that its perusal can not fail to clear up the doubts that a physician may entertain as to the propriety of recommending a sojourn in that State to the particular invalids who may come to him for advice. And the latter themselves will find in it many valuable hints of just that sort that is needed by an invalid traveler. It is most agreeably written, and with an evident candor and freedom from bias that commend it at once.

The Medical Digest, or Busy Practitioner's Vade-Mecum. Being a Means of readily acquiring Information upon the Principal Contributions to Medical Science during the last Thirty-five Years. By RICHARD NEALE, M. D. Lond., etc. Second edition. London: Ledger, Smith & Co., 1882. Pp. 643-lxxxii.

THIS is an analogous work to our American "Index Medicus," but much less comprehensive than the latter, for, instead of abstracting from all current literature, it limits itself to a small number of publications, chiefly English. We said it was analogous to the "Index Medicus," which is not strictly correct, as in addition to the reference there is, in many cases, a brief *digest* of the article. The author has been patiently continuing this habit of noting down articles of importance for thirty-five years, giving an example which it would be well for others to follow. In so far as the book goes, it is a very useful one.

A Practical Laboratory Course in Medical Chemistry. By JOHN C. DRAPER, M. D., LL. D., Professor of Chemistry in the Medical Department, University of New York, etc. New York: William Wood & Co., 1882. Pp. vi-71.

THIS is another of the condensed laboratory text-books of which so many have lately been issued, and, judging from a somewhat superficial examination, it would seem, in point of convenience and fullness, to be rather in advance of its competitors. The name of the author is a guarantee of its accuracy, and the binding and make-up are good.

Regional Surgery, including Surgical Diagnosis. A Manual for the Use of Students. Part I—the Head and Neck. By F. A. SOUTHAM, M. A., M. B. Oxon., F. R. C. S. E., Assistant Surgeon to the Manchester Royal Infirmary, etc. London: J. & A. Churchill, 1882. Pp. xvi-229.

THIS book deals with the regional surgery of the head and neck alone, being the first of a series of three proposed volumes. It covers, in successive chapters, tumors of the scalp; surgical diseases of the scalp and cranium; injuries of the head; surgical affections of the face, nose, and lips; the various diseases of the jaws, teeth, mouth, tongue, palate, gums, tonsils, pharynx, and cesophagus; the abnormal states of the lachrymal and auditory apparatuses demanding surgical treatment; and the surgical affections and injuries of the neck.

It will readily be seen that such an extensive field can not be covered in much detail in a volume of so small a size. It has surprised and gratified the reviewer, however, to find so much valuable matter compressed into this small compass. The hints embodied in the work are well chosen, and are clearly impressed upon the reader. The method adopted of giving marginal references to the text greatly assists in rapid reference, and will add to the value of the book, especially with those who

have little time to devote to systematic reading. The tables of differential diagnosis occasionally incorporated in the text of the work remind us of an American work upon surgical diagnosis which is constructed largely upon that plan. Such tables have a double advantage over simple descriptive text—viz., they afford a given amount of information in the smallest possible space, and, in addition, assist the memory of the reader by contrasting the symptoms of two diseases having points of resemblance. We heartily commend this work, and believe that when completed it will prove a valuable addition to the library of any physician.

Questions on Human Anatomy. By SAMUEL O. L. POTTER, M. A., M. D., etc. With sixty-three illustrations. Philadelphia: P. Blakiston, Son & Co., 1882. Pp. 139. [Price, \$1.]

THIS work is the first of a series of eight volumes now in preparation. The series, as a whole, is supposed to exhaust the more important points treated of by the incumbents of the seven chairs of our medical colleges. The work is arranged in the form of questions and answers, intended to be used for self-examination, and to supply the demand now filled by quiz-masters. We do not think that any book of this kind can do what a supervising instructor accomplishes (if he be competent), but such aids may often be used by students to advantage, provided they are not abused. The danger is that students too often confine themselves to such cram-books (to the exclusion of standard works), and thus become superficial in their knowledge. The work under consideration is a good one of its kind.

BOOKS AND PAMPHLETS RECEIVED.

Nerve-Vibration and Excitation as Agents in the Treatment of Functional Disorder and Organic Disease. By J. Mortimer Granville, M. D. London: J. & A. Churchill, 1883. Pp. 128.

Microbes in Fermentation, Putrefaction, and Disease. Paper read before the Philosophical Society of Glasgow, December 14, 1881. By Charles Cameron, M. D., LL. D., M. P. London: Baillière, Tindall, and Cox, 1882. Pp. 32. [Price, 1s.]

The Termination of the Nerves in the Liver. By M. L. Holbrook, M. D. Reprinted from the Proceedings of the American Society of Microscopists. Pp. 95 to 100, inclusive.

The Structure of the Muscles of the Lobster. By M. L. Holbrook, M. D. Reprinted from the Proceedings of the American Society of Microscopists. Pp. 131 to 138, inclusive.

London Water Supply. Report, etc. No. xxii.

Transactions of the Medical Society of the State of New York for the year 1882. Pp. 474-17.

Suprapubic Lithotomy. The High Operation for Stone—Epicystotomy—Hypogastric Lithotomy—(The High Apparatus). By William Tod Helmuth, M. D., Professor of Surgery in the New York Homœopathic Medical College, etc. Illustrated with eight lithographic plates and numerous engravings on wood. New York and Philadelphia: Boericke & Tafel, 1882. 4to, pp. 93. [Price, \$4.]

Old School Medicine and Homœopathy. A reprint from the "North American Review," June, 1882, being a reply to Professor Palmer's article in the March number, entitled the "Fallacies of Homœopathy." By J. W. Dowling, M. D., Professor of Physical Diagnosis and Diseases of the Heart and Lungs, New York Homœopathic Medical College, etc. New York: C. T. Hurlburt, 1882. Pp. 26.

An Important Medical Case; Alleged Misprint in a Medical Work of Authority. Full Report of the J. P.'s Proceedings as to the Death of the late Mr. S. R. Aitken, with Editorial Comments and Correspondence. [Reprint from the "Ceylon Observer."] Colombo, 1882. [From Dr. J. L. Vanderstraaten.]

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MASSACHUSETTS IDIOTS AND LUNATICS.

IN his inaugural message the new Governor of Massachusetts alludes to the provisions made by that State for the care of the idiotic and the insane, or rather to the methods by which those provisions are carried out, in terms which indicate a versatility ready to busy itself with almost any problem that man may be called upon to ponder, and, furthermore, to solve it offhand.

"When," says General Butler, "the State shall have sufficiently educated every bright child within its borders, it will be time enough to undertake the education of the idiotic and feeble-minded. I submit," he continues, "that this attempt to reverse the irrevocable decree as to 'the survival of the fittest' is not even kindness to the poor creatures who are in this school. Give them an asylum, with good and kind treatment, but not a school. The report from that school shows that none of its pupils have been made self-supporting by its teachings. The report further shows that those in whom some spark of intelligence has been awakened have become so ashamed of their school that when they write to their parents they beg for paper and envelopes which have not its card upon it. That is, they have been educated simply enough to know of their deficiencies and be ashamed of themselves and their surroundings. We do not contribute to their happiness by giving them that degree of knowledge. A well-fed, well-cared-for idiot is a happy creature. An idiot awakened to his condition is a miserable one."

As we quote from a newspaper account, we are not sure that we are giving the Governor's English with precision; hence we forbear to comment upon it. Concerning the substance of what he says, however, there can scarcely be any inaccuracy. Barbarous as General Butler's view of this matter is, the fact on which he founds his argument must be gratifying in the extreme to the few devoted men and women who have labored to reclaim the idiotic. Surely it is no doubtful sign of success when an idiot is brought to such a state of intelligence as to be ashamed of himself for his deficiencies. Doubtless he is not made happy by this partial awakening of his faculties, but we take it that General Butler is very much in error if he supposes that the great object in attempting to reclaim idiots is to make them happy. We fail to see, too, any antagonism between such attempts and whatever "irrevocable decree" there may be as to the survival of the fittest. To carry his dictum to legitimate lengths, no time should be spent on dunces, but only the gifted should be educated, and the man who buried his one talent did the proper thing.

The Governor bewails the increase of insanity in the State,

and gives it as his impression in regard to establishments for the insane, both private and public, that "their doors open altogether too easily inward, and with too great difficulty outward." Evidences of the soundness of his position in this matter are often brought to light in the shape of felonies committed by those who had before been looked upon as harmless. For the "harmless chronic insane" the General suggests that provision be made on the cottage or family plan. He hints that psychiatry has not kept pace with the other branches of medicine, as shown by the decreasing percentage of cures effected among the insane for several years past. If the Governor's statements of facts are correct, there must be some factor to be taken into account beyond what appears, for we can scarcely entertain the supposition that the alienists of Massachusetts are materially behind their brethren elsewhere, and we are not aware that the practice of psychiatry is so defective in general.

DISTENSION OF THE FALLOPIAN TUBES.

DR. EMMET's specimens of dilated Fallopian tubes that Mr. Lawson Tait had removed by laparotomy, which were lately shown to the Obstetrical Society, and the considerable experience in Tait's operation that Dr. Thomas soon afterward recounted before the Academy of Medicine, in the form of the paper contained in our last issue, have awakened New York gynecologists to the frequency with which morbid conditions of the tubes may be found to play a leading part in giving rise to distressing symptoms, and in keeping up other pathological processes within the pelvis. They also show abundantly that much of Mr. Tait's work has not been of the shadowy character that has been imputed to it.

In view of the great activity that has been displayed of late years in the study of the diseases of the pelvic organs in women, and of the thoroughness with which physical methods of diagnosis have been applied to that study, it is not a little surprising that the facts now brought to light should heretofore, in great measure, have passed unrecognized. We can understand how it may have been in the past that a Fallopian tube, even largely distended, was so masked by surrounding exudate, matting adjacent structures together in one indeterminable mass, that its separate recognition by means of any or all of the methods of exploration applicable to the case was out of the question. Many of the specimens alluded to, indeed, were removed by abdominal incision on the strength of a diagnosis founded on so bold an inference as that disease of the tube must have been at the bottom of the rebelliousness to treatment shown in many cases in which the physical signs pointed to nothing more definite than an inflammatory deposit. Yet, in regard to some of them, the histories, in so far as concerns the state of the parts surrounding the tube, seem to show that it ought to have been possible to diagnosticate enlargement of the tubes with precision. That a mass shaped like a sausage, and often as large as a small sausage, not complicated with a bulky exudate or specially bound down by adhesions, should in repeated in-

stances escape recognition, can be imputed only to an omission on the part of the surgeon to take the condition into account in his mental catalogue of possibilities. Such an omission is not now likely to enter to any great extent into the list of obstacles to a diagnosis.

It seems probable that the general pathologists, who have heretofore had little to say about morbid conditions of the Fallopian tubes encountered by them, will be moved to throw light upon the matter. Already a verbal statement has reached us from one of our best-known necroscopists, to the effect that in his post-mortem examinations it has not been uncommon for him to find distension of the tubes. If the records kept by these investigators can be pressed into the service on a large scale, they will doubtless aid materially in settling the question, in a general way, as to how large a proportion of cases of distended Fallopian tubes will probably be found complicated with other lesions that may frustrate a precise diagnosis. No doubt that proportion will be considerable; but, if it does not preponderate overwhelmingly, we may look to see distension of the tubes diagnosticated with certainty in a far greater number of instances than hitherto. In cases that are so complicated, of course any operative procedure undertaken must find its justification in mere inference.

With all our recent advances in abdominal surgery, it is still a grave matter to make an incision into the peritoneal cavity without a reasonable approach to certain knowledge of the condition of its contents. In view of this state of things, it would be a great advantage if we could resort, with a fair prospect of success, to other procedures than laparotomy. Possibly it will be found feasible to puncture such collections of fluid through the vaginal wall, establish a free communication with the vagina, and treat the canal of the tube with a view to securing its occlusion throughout. It is conceivable that some of the pelvic collections of fluid that were treated by puncture in the early years of modern gynecology—some-what blindly, it is true, but in many instances effectually—were really examples of distended Fallopian tubes.

From an etiological point of view, it would be interesting to trace what connection there is, if any, between these affections of the tube and the latent gonorrhœa of Noeggerath—a hypothetical condition that met with scant favor when first broached, but which is now admitted as plausible, if not demonstrable, by several observers of good repute.

THE NEW PHARMACOPŒIA.

II.

THE nomenclature made use of in the work seems to call for some remark, and it may be worth the reader's while to take note of the latinity displayed in it. As to the latter, we have little to say about it, and shall take up its consideration first, in order that we may soon have done with it. Concerning really classical words, the latinity of the pharmacopœia has been ably defended by Dr. Rice, in the columns of one of our contemporaries, in so far at least as certain epistolary criticisms have dealt

with it. There are some of its features, however, that we have not seen mentioned, and a few of these we will allude to now, not so much in the way of criticism as to call attention to them.

The chemical element *carbon* is endowed with a name of which the genitive is *carbonei*. We do not remember to have met with this word before. Certainly it is not classical, and we can scarcely concede the necessity of coining a word for carbon simply that it might differ from the Latin for charcoal, for the expressions *carbo animalis* and *carbo ligni*, both of which figure in the pharmacopœia, are distinctive enough to do away with any possible confusion. Arsenicum is superseded by arsenium, a word for which there is good classical authority, and one that corresponds with the names now generally applied to many others of the metals. This change, then, seems a good one. The committee seem to have seen some subtle difference in meaning between the terms *crude* and *commercial*, as applied to drugs, for we find *acidum carbolicum crudum* and *chloroformum venale*.

In regard to the foregoing, questions of classical usage properly come up, and changes may legitimately be made in the mere striving after correctness. When it comes to changing made-up Latin words, however, we think that no other consideration than that of practical utility should be regarded. What good purpose is served, for instance, by the declaration that the Latin names of salts in *-as* and *-is* are masculine? Amyl and diachylon are made indeclinable; hæmatoxyton, however, has the genitive hæmatoxyli. Pulvis opii, apparently by a mere freak, becomes opii pulvis. "Petroleum ointment," commonly called vaseline, receives the name of petrolatum, a word that seems to us ill-constructed, although we are unable to suggest a better one. We think, too, that guarana might better have been called paulinia. It strikes us that the prune might as well have been distinguished from the prunus virginiana by calling it prunus domestica as prunum, the name under which it now figures. We can see but one excuse for such words as bromum, chlorum, and iodum—to distinguish the elements they stand for from the metals; but that can scarcely have been the reason for the change, else why do we find manganum for manganese? There is one change, however, that we heartily approve of—that of distinguishing between the alkaloids and the so-called neutral principles by making their names differ in termination, a rule long ago adopted by the chemists: for instance, the names of alkaloids end in *-ine*, and those of neutral principles in *-in* (e. g., morphine [Latin, morphina], glycerin [Latin, glycerinum]). This has the great practical advantage that it enables the reader to distinguish as to which of the two classes any given principle belongs to without spending the time to look up its chemistry. We find, however, that chinoidin is defined as "a mixture of alkaloids," notwithstanding its neuter termination.

The rule is followed, with a few exceptions, of denoting vegetable drugs by their botanical genus-name, no species-name being added unless more than one species of the same genus are officinal; why, then, cassia fistula, the only cassia that figures as a heading in the pharmacopœia? We can not approve of the practice of writing species-names with initial capitals for the

purpose of denoting that such names have been used in the past as genus-names.

The boracic acid of the past is now to be known as boric acid, a thoroughly commendable change, since the substance is not a derivative of borax, but of boron. Ceratum is judged sufficiently distinctive of "simple cerate," but we find elixir aurantii for the only elixir mentioned (simple elixir). The substance usually termed hydrate of chloral is called simply chloral, although we infer, from the chemical formula given, that it is considered as a hydrate. Cologne-water is rather vaguely styled spiritus odoratus.

All these are minor matters, to be sure, but the pharmacopœia should be, like Cæsar's wife, above suspicion.

THE "GOOD STANDING" OF MEDICAL COLLEGES.

THE Illinois law regulating the practice of medicine invests the State Board of Health with the power to grant licenses to practice to persons who fulfill certain specified requirements, which latter vary according as the applicant is or is not a graduate of a medical college "in good standing." As the law does not define what constitutes the "good standing" referred to, the board has felt the need of making such a definition for its own guidance, and in its Fourth Annual Report, a volume replete with information in regard to the sanitation of the State and the regulation of medical practice within its borders, we find the conclusions arrived at by a special committee appointed to report upon the matter.

The committee find that, to be classed as "in good standing," a medical college must enforce the following conditions of admission to its lecture courses: Credible certificates of good moral standing. A diploma of graduation from a good literary and scientific college or high school, or, in default of such diploma, a thorough examination in mathematics, English composition, and elementary physics, the latter provision not to be insisted upon until after the close of the lecture sessions of 1882-'83. The following branches must be included in its courses of instruction: anatomy, physiology, chemistry, materia medica and therapeutics, the theory and practice of medicine, pathology, surgery, obstetrics and gynecology, hygiene, and medical jurisprudence. Each regular session must be of not less than twenty weeks' duration. Attendance on two such courses, both of which shall not fall within the same year, must be required of candidates for graduation. It must enforce the regular attendance of its students during the entire lecture course, allowing only for absences occasioned by the student's sickness, such absences not to cover more than one fifth of the course. Regular examinations, or "quizzes," must be made by each lecturer or professor daily, or at least twice a week. There must be final examinations on all the branches taught, to be conducted, when practicable, by other competent examiners than the professors. Each student must be required to have dissected during two courses, to have taken at least two terms of clinical and hospital instruction, and to have spent not less than three full years in professional study before graduation,

including the time of instruction by a preceptor and that devoted to attendance upon lectures, clinics, and hospitals. The college must show that it has a sufficient and competent corps of instructors, together with the necessary facilities for teaching, for dissection, for clinics, etc.

In the foregoing we have adhered to the committee's phraseology in the main, simply condensing it. It will be seen that in some respects it is rather vague. It must be confessed, however, that the inquiry with which the committee found itself at work was a knotty one, and, consequently, that precision was scarcely to be looked for in all the details of its conclusions. The board expresses regret that it is not at liberty to exact a higher standard, but we think that in some matters its requirements are beyond what is actually to be found in many of the colleges that would have a "good standing" conceded to them by the profession at large without any question. Indeed, in the list of institutions approved of by the board we find several which do not require of candidates for graduation all the conditions that the committee enumerate. Nevertheless, it seems to us that the committee have done exceedingly well, in view of the difficulties of the undertaking.

The people of the State of New York have for years persistently and stupidly refused to protect their own interests, their health and their lives, by any regulation of medical practice worthy of the name. Illinois, which was a wilderness within the memory of many who are now living, enforces a law that, while it imposes no grievous burdens, can scarcely fail to elevate the medical profession within its borders, and to guard its people against damage at the hands of gross incompetence. That it may shame our legislators into some approach to adequate action is, perhaps, too much to hope for.

A LESSON IN HOSPITAL CONSTRUCTION.

It would scarcely be supposed that the report of a committee, appointed to devise the plan for a new hospital in Italy, would make very entertaining reading for Americans; but there is such a report* before us, which is of rather special interest, embracing some features which it would be well for our American sanitarians to consider and to imitate. The committee who had the building of the hospital in charge evidently regarded the health, happiness, and comfort of the patients as the primary objects to be attained. Accordingly, while preserving a plain, inexpensive exterior, they managed to allot an ample proportion of fresh air and sunlight to each patient, and they arranged their room-space so judiciously as to allow of the complete isolation of contagious cases and maniacal patients, the separation of the kitchens and laundries from the ward-buildings, and the employment of special rooms for the application of electricity, the administration of the hydropathic treatment, etc. In all these respects our New York hospitals are certainly as yet far from perfect. Another feature deserving of imitation is the minute attention paid to details apparently trivial, which are, nevertheless, of great importance for the well-being and satisfaction of the patients—such as the attachment to each ward of sitting-rooms for the convalescents, and of rooms for

* "Piana-Ballotta." Progetto premiato al concorso del Nuovo Ospedale di Lugo in Romagna. Pubblicato a cura della commissione cassa-fabbrica. Bologna: Nicola Zanichelli, 1882.

isolating the noisy, and the addition of separate means of egress for the removal of the dead.

The hospital was designed upon the pavilion plan, and the reasons for the adoption of the special form employed, and a brief comparison of this and the other forms which are in use, are succinctly stated. For this, as well as for many other points of interest, we must refer to the book itself, which we can cheerfully recommend to all projectors of new hospitals, and others concerned in public hygiene, as a useful contribution to sanitary science.

TRICHINOSIS AND THE PRODUCE EXCHANGE.

THE New York Produce Exchange, acting, as we understand, on the strength of a report presented to it by a committee of its members appointed to investigate the question of what grounds there may have been for the disrepute into which American pork has fallen in several European countries, maintains that the authorities of those countries have fallen into error from having misinterpreted a circular issued by certain New York pork-packers for the purpose of gaining for themselves whatever advantage might accrue from a criticism of the methods of packing employed in Chicago. The circular, it is said, maintained that the Chicago packers resorted to objectionable methods of packing their pork, and the Exchange now declares that the document must have been construed abroad as a condemnation of American pork in general. The collateral facts cited by the committee go far to show, if any proof were needed, that there has been some misapprehension about the matter in Europe, but we think the stand taken by the Exchange is not materially supported by the declaration that trichinosis has never been due to eating pork that had been cooked.

THE MEDICAL RECORD.

THIS sterling journal enters upon the year 1883 with its pages enlarged, its paper of better quality, and its typography strikingly improved, having, in short, a most handsome appearance. The valuable matter that its readers have been accustomed to find in it is now worthily presented, and it gives ample evidence that its rehabilitation is none too fine for its substance. Dr. Shrady's long experience as its editor is a sufficient guarantee that the "Record" will continue in the future, as in the past, to supply its readers with a faithful and creditable reflection of contemporary medicine.

Proceedings of Societies.

PATHOLOGICAL SOCIETY OF PHILADELPHIA.

A REGULAR meeting was held November 23, 1882, Dr. JAMES TYSON, President, in the chair.

GREAT HYPERTROPHY OF THE HEART, DUE TO SEVERE VALVULAR LESIONS.—Presented by Dr. M. O'HARA. J. H., a male, aged thirty years, laborer, contracted syphilis when eighteen years of age. Health good until within the past three years, when he began to suffer from pain in the left breast, palpitation of the heart, and slight dyspnoea after violent exertion. Gradually becoming worse, and unable to work, he was admitted into St. Mary's Hospital in June, 1882. He then complained of great pain over the upper part of the sternum, and in the left arm and shoulder. He lost considerably in weight, his appetite was poor, and albumin was present in small proportion in his urine, although casts were absent. He had marked dyspnoea on ad-

mission, which increased rapidly until sleep could only be obtained in the upright position. There was no evidence of pulmonary trouble. With the forearms flexed to a right angle, the brachial arteries became prominent at each impulse of the heart; the pulsation of the carotids was wavy and prolonged; the temporals were tortuous and pulsated visibly; no retinal arterial pulsation was seen. Retinal venous pulse was marked, but no visible venous pulsation was detected elsewhere. The left præcordial region was specially prominent. The apex beat was most distinct in the sixth and seventh interspaces, on a vertical line running midway between the left nipple and the anterior border of the left axilla. The heart's impulse was usually forcible and diffused, but at times it became weakened and wavy. In the second left intercostal space a systolic impulse was observed. The pulse varied from eighty to one hundred and twenty a minute, struck the finger with considerable force, but at once lost most of its volume. All these phenomena were exaggerated by raising the hands above the head. The radial pulses were unequal, but the brachial arteries presented no differences. No hepatic pulsation was felt. The cardiac area of complete dullness was of nearly twice its normal size, the increase being downward and to the left. Over the second right costo-sternal articulation the closure of the aortic valves was distinctly heard, and with this a slight diastolic murmur. A systolic murmur was also heard over the same spot. The systolic murmur was nearly lost in the carotid and subclavian arteries, but the diastolic one remained distinct. On a line with the second costal cartilage, over the sternum and to the left of this bone, the diastolic and systolic basic murmurs were most intense. Over the cartilage of the left fourth rib the murmurs heard at the base of the heart were less distinct, or were obscured by the development of other murmurs. In this situation a short, sharp presystolic murmur, apparently prolonged into a systolic one, was detected. At the apex, and just above it, the systolic murmur became intensified, its blowing character aiding in differentiating it from the short, harsh murmur which immediately preceded it. From the fourth to the seventh rib, and from the sternum to a point about five or six inches to the left, a diastolic murmur of considerable intensity was heard. The character of the diastolic murmur over this area was different from that presented by the second-sound murmur at the base of the heart, and its intensity was much greater. Posteriorly, at the lower angle of the left scapula, a blowing systolic murmur, entirely deprived of its harsh presystolic complication, was heard. Dr. Eskridge thought the physical signs justified him in venturing the diagnosis of constriction and regurgitation at the mitral orifice: a rare form of aortic regurgitation produced by the inability of one of the aortic semi-lunar valves to close while the others acted properly; great hypertrophic dilatation of the left ventricle, and to a less extent of the left auricle; and aneurismal dilatation of one of the great vessels, probably of the pulmonary artery near its origin from the heart. The patient rapidly sank. Œdema of the lower portion of the trunk and lower extremities, with hydrops pericardii et pleuræ et peritonæi developed. He died, exhausted, in August, nearly two months after admission to the hospital.

Sectio Cadaveris.—Brain: Some venous congestion of the pia mater. The brain substance and the ganglia nearly normal in appearance. Thorax: The pericardium was nearly filled with serum. The only evidences of inflammation were a few patches of recent lymph at the left anterior upper portion of the sac. The heart weighed eighteen ounces, the increased weight being chiefly due to eccentric hypertrophy of the left auricle and ventricle. The right ventricle was dilated, with slightly thickened walls. The aortic valves were insufficient and thickened. The posterior leaflet was normal in shape, but the others curled

upon themselves on the aortic side of the orifice. The stenosis was slight. The mitral orifice was button-hole-shaped, and the valves failed to close on account of calcareous deposits in their tissues, this degeneration also involving the inner surface of the left side of the auricle contiguous to the valves. The auricular surface of the valves was fairly smooth, but in the ventricle just beyond the valves, and attached to them, hung a bony substance about one eighth of an inch in diameter. The left auricular appendix was much hypertrophied. The valves at the tricuspid and pulmonary orifices were normal. The pulmonary artery was considerably dilated. The pleural cavities contained several ounces of serum. There were old adhesions at the apex of the right lung posteriorly, and at the same part of the left lung anteriorly. Several patches of recent lymph were also found at the lower part of the left pleural cavity. Abdomen: The peritoneal cavity contained considerable serum, and its veins were engorged. The liver was enlarged with distended veins. The kidneys were highly congested. The spleen was of double its normal size, and softened.

ABSCESS OF THE LIVER FOLLOWING ARRESTED MENSTRUAL DISCHARGE, FROM EXPOSURE TO COLD; PYÆMIC ABSCESSES OF THE LUNGS AND SPLEEN; PERFORATION OF THE BOWEL; SEVERE HEART COMPLICATIONS; DEATH DURING THE SEVENTH WEEK.—Presented by Dr. J. T. ESKRIDGE. M. D., aged twenty-eight years, was a factory girl, whose father and two sisters had died from heart disease. She had had two attacks of inflammatory rheumatism, but had never complained of heart trouble. Her fatal illness began at night, by arrested menstrual flow, and severe cramping abdominal pains, coming on after exposure to cold during the previous afternoon. Fever and pain in the right lower side of the abdomen continued for three days, when she was able to work again for about a week. Jaundice began early, was well marked during the first three weeks, was slight afterward, but lasted until her death. Her symptoms three weeks after the beginning of the attack, when admitted into St. Mary's Hospital, in Dr. Hickman's wards, were, great prostration, emaciation, loss of appetite, pain in the right inguinal and lumbar regions, and irregularly recurring chilly sensations. Two weeks later, when first seen by Dr. Eskridge, the liver dullness extended nearly to the anterior superior process of the ilium, and the normal tympanitic note of the right inguinal region of the abdomen was replaced by one bordering on dullness. The tenderness was so great that neither fluctuation nor a tumor could be detected, if such existed. Great tympany soon developed, and obscured the physical signs. A pyæmic condition, from which the patient perished in about two weeks, set in, attended by chills, fever, sweating, low temperature, and diarrhoea. A few days before death she passed considerable pus by the bowels. The surface temperature, taken over the chest and abdomen, showed the latter to be about two degrees warmer than the former, but all parts of the abdomen were of nearly the same temperature. Stenosis of the aortic and mitral orifices, with insufficiency of the valves of the latter, and a dilated hypertrophy of the left auricle and ventricle, were recognized during life. The post-mortem examination revealed the lesions of the heart diagnosed, and demonstrated the possibility of visible left auricular pulsation. The liver weighed eighty ounces (the right lobe being alone enlarged), and contained a large abscess, surrounded by several smaller ones with which it was connected. The cæcum and its appendix were surrounded by about six ounces of pus, the latter being circumscribed by adhesions. Two openings were found in the black and gangrenous cæcum—one where its appendix had sloughed off, the other due to perforation of the bowel by the pus. The portion of the liver external to the hepatic abscess was firmly adherent to the abdominal wall, and from this point (about two inches above

the crest of the ilium) the pus had burrowed its way and formed a sinus leading to the right inguinal region under Poupart's ligament. A direct communication between the liver abscess and the accumulation of pus surrounding the cæcum was seen.

Dr. Eskridge thought that the demonstration of the possibility of visible left auricular pulsation in the second left intercostal space, and of the occurrence of a functional murmur in the pulmonary artery without dilatation of that vessel, was worthy of notice at present, as Dr. Broadbent had so recently advocated views almost diametrically opposite. Dr. Eskridge considered mitral stenosis of not infrequent occurrence, and said that with care the mitral presystolic murmur was not usually difficult to detect. The four physicians, including himself, present at the autopsy, then thought that the hepatic abscess was secondary to the inflammation and suppuration around the appendix and cæcum, but he, after carefully analyzing the clinical evidence and pathological lesions in favor of each condition, was satisfied that the case began as one of primary abscess of the liver, following exposure to cold while the patient was menstruating.

The discussion on both the preceding specimens, which presented somewhat similar heart lesions, was now opened by Dr. J. C. WILSON, who said that there was one point of special clinical interest in Dr. Eskridge's case, viz., the chronology of the lesions. He thought that the extensive multiple abscesses of the liver and lungs were secondary to the abscess around the caput coli. In some cases the determination of the primary source of the emboli was difficult, but in this case it was perfectly clear.

Dr. BRUEN said that he would like to go on record among those who had observed auricular pulsation in cases of mitral obstruction in which the stenosis was extreme.

Dr. NANCREDE remarked that in his experience flexion of the thigh on the abdomen was an almost invariably early symptom in cases of perityphlitis, from which he would infer that, as this thigh flexion did not occur in Dr. Eskridge's case until within ten days of the fatal termination of the case, the circumcæcal abscess was secondary to that in the liver.

Dr. TYSON said that he had been much impressed with the marked increase of the surface temperature in the neighborhood of the abdominal abscesses as compared with the general body temperature. As to the chronology of the various affections, he was inclined to believe that Dr. Wilson was correct.

Dr. ESKRIDGE said, in reply to Dr. Wilson, that he could appreciate how the perityphlitis might be mistaken for the primary trouble, and the hepatic suppuration for the secondary; such a mistake (for he felt certain that the abscess of the liver was the primary affection) was made by all, including himself, who were present at the post-mortem examination. The pathological and clinical facts in favor of primary hepatic abscess were given at some length in his remarks in connection with the presentation of the specimens. In brief, the clinical features were as follows: Deep and early jaundice following exposure to cold; pain in the right side of the abdomen, attended by fever and gastric irritability of a few days' duration; an intermission of a week, during which she was able to work, followed, after which, gradually increasing weakness, with dull abdominal pain, attended by loss of flesh and appetite, confined her to bed; ten days before death, the development of intense tympany, associated with flexion of the right thigh upon the abdomen. The hepatic suppuration was confined to the right side of the right lobe, all the smaller abscesses directly communicating with the large one, and the left lobe of the liver being apparently healthy.

TONGUE AND LARYNX FROM A CASE OF ELEPHANTIASIS GRÆCORUM.—Presented by Dr. A. O. W. BEECHER. The case which furnished the specimens was reported in the "Photo-

graphic Review of Medicine and Surgery," No. 6, vol. i, August, 1871. Mr. —, aged twenty-six years, born in Cuba of Spanish parents, married. His father was living when the patient died in 1872; the mother died when he was an infant. He was wet-nursed by a colored house-servant, who was unmarried, but had had several children by different individuals. She was healthy so far as known, with the exception of sores upon her feet. He had none of the diseases of early life except measles and mumps. His health was good up to fifteen years of age, when superficial yellowish-pink spots appeared upon his body, accompanied by neither pain nor itching. They remained about one year, and disappeared during a voyage to Spain. While there he was attacked with neuralgia of the little fingers, extending along the course of the ulnar nerve to the elbow, which was relieved, and he returned to the West Indies. Six months after his return he experienced a second attack, which lasted for one month. In 1862 he came to this country to study, and after one year became the subject of repeated catarrhs, chiefly affecting the throat. Itching of both forearms and legs soon after developed. In 1866 œdema of the hands and feet, which did not extend beyond the wrist or ankle, set in, producing a sensation of stiffness of the fingers and toes. Blebs then suddenly appeared in varying size upon the dorsum of the hands and fingers, extending over the whole length of the latter. At times a sharp pain in the hands and fingers, arousing him from sleep, would herald one of these bullous attacks. The bullæ contained a whitish opaque fluid, and when burst were succeeded by dark-brown scabs, transversely cracked and fissured over the joints. Under these crusts were excavated ulcers. The finger tips and the ends of the toes presented similar ulcers, over which the nails grew, and these latter, being brittle, broke off when long. Next, frequent hæmorrhages from the nose, coming on while laughing or in mental or physical excitement, were observed. The nose became tender, was much swollen, and discharged moderately offensive pus, and the bridge of the nose began to sink, gradually assuming its present appearance. (A photograph was here shown.) A year after the hands were attacked, the face became similarly affected, the ulcers on healing leaving distinct cicatrices. The eruption never entirely ceased, new bullæ and ulcers forming while others healed. There was marked emaciation. The hair, which was everywhere scanty, was absent in many parts of the body, and the skin was of a dusky hue. The muscles of the arms were much wasted, and the skin presented small white cicatrices. Over both patellæ and olecranon processes, large, hard, firm, reddish nodules were seen. The hands were much deformed, with wasted, contracted fingers, having numerous small hard tubercles scattered beneath the skin of the dorsal surface of the hands. Numerous ulcers, mostly covered with irregular black scabs, covered the back of the fingers. A markedly varicose condition of the veins near the wrist was observed. The hair of the head was normal in quantity, but was hard and harsh, while there was total loss of eyelashes and eyebrows, and the beard was scanty. There was a large hard tubercle over one frontal boss, near which was an old ulcer. The nose was much sunken, there was an ulcer over the right zygoma, covered by a black rupial-like scab, the face was marked with scars, and the ears were likewise deformed with traces of numerous cicatrices. Many of the teeth were decayed and broken off close to the gums. The tongue was much thickened with greatly enlarged papillæ. The velum palati was almost gone from ulceration, and yellowish-white tubercles existed in the pillars of the fauces. The larynx was much contracted by thickening of its mucous membrane. The epiglottis was of about twice its normal thickness, and had several well-marked tubercles upon it. The voice was much impaired, weak,

and had a peculiar husky sound. There were deep sloughing ulcers over each tendo Achillis. Tactile sense was very much impaired, as in the dorsum of the hands, where the sense of touch was almost absent, and what was recognized was referred to some point in the neighborhood of the point of contact. The sense of pain was almost entirely absent in the hands and forearms, becoming more marked as the body was approached; a pin passed through the pulp of the middle finger gave absolutely no pain. The difference between very hot water and that of an ordinary temperature was readily perceived; moreover, there was general increased cutaneous sensibility to temperature changes. Taste and smell were somewhat impaired. Very slight anæsthesia of the trunk existed. Sight was good, although prolonged use of the eyes was painful. The general health of the patient was fair. There seemed to be no trace of venereal disease. Sexual power was absent. Frequent neuralgic pains of the legs and arms were complained of. The atrophy of the hands, feet, fingers, and toes was appreciable from month to month. The cornea next became ulcerated, the conjunctival surfaces became adherent, and almost total blindness ensued. Swallowing was almost impossible toward the last, owing to the pain produced by the throat ulcers, and because, from imperfect closure of the rima glottidis, fragments of food entered the larynx, producing violent and exhaustive coughing. Respiration was also so much impeded that he died October 29, 1872, partly from dyspnœa, partly from starvation. Up to death he suffered intensely.

Autopsy.—Rigor mortis well marked. Great emaciation of the entire body noted. The surface of the tongue was fissured, the papillæ being enlarged, with the remains of tubercles well marked toward its base. The epiglottis was curved on its long diameter, thickened and stiff, with its upper margin eroded by a large ulcer. A deep ulcer was situated in the mucous membrane near the apex of the left greater cornu of the hyoid bone. Narrowing from thickening of tissues involved the trachea at its upper part, and produced such stenosis of the chink of the glottis that an ordinary quill could not be passed between the vocal cords. Upon section of both ulnar nerves near the elbow, extensive degeneration was detected. This case was examined both by Dr. Duhring and Dr. R. M. Bertholet—the latter making a laryngoscopic examination—who both considered it to be of the mixed variety, viz., tubercular and anæsthetic leprosy. The case was interesting both from its variety and the possibility of other cases being brought here from California and New Brunswick, in both of which places it was not uncommon. "Again, its resemblance to syphilis at first led me into error, although," said Dr. Beecher, "I recognized something strange about the disease. The late Dr. Maury saw the case with me, and had no doubt of its syphilitic nature until Dr. Duhring's examination convinced him that it was really leprosy. Erasmus Wilson says: 'The resemblance to secondary syphilis is so striking that an error is certain excepting on the part of those who have had an opportunity of seeing and observing leprosy.'"

Dr. Wilson asked whether the family history had been investigated. Dr. Beecher replied that he had carefully questioned all concerned, but had ascertained nothing special, except that, when such cases occurred in wealthy families, the fact was always hushed up. Dr. Wilson said that in this connection he would call the attention of the members to a very able article in the last issue of "The American Journal of the Medical Sciences," where the writer took the view that leprosy was contagious, maintaining that it should be investigated where it was of rare and recent occurrence. Dr. Wilson also referred to its occurrence among recent immigrants in certain of our north-western States.

Dr. CARL SEILER said that Dr. Beecher had asked him to examine the specimens of the larynx and tongue of the case of elephantiasis. The dorsum of the tongue was deeply furred, and the papillæ appeared enlarged. The epiglottis was thickened, very stiff, and rolled on its long axis like a dry leaf. On its upper free margin was a crescentic ulcer with raised edges, and numerous smaller roundish ulcers were scattered over the laryngeal surface of the epiglottis. Extensive ulceration of both ventricular bands and vocal cords existed, so that the opening of the ventricles was almost entirely occluded. The ulcers were symmetrical, and most marked toward the anterior insertion of the vocal cords. About one fourth of an inch below the cords was a cicatricial band projecting from the sides of the subglottic cavity, and leaving an elliptical opening, through which a crow-quill could hardly be passed. Below this obstruction the mucous membrane of the subglottic cavity was studded with small, round ulcers, while the trachea seemed healthy. No further lesions could be detected by the naked eye, although, doubtless, such had existed, but had been obscured owing to long preservation in alcohol. Dr. Seiler regretted the absence of the records of the laryngoscopic examinations made before the patient's death, still the lesions seen in the specimen would explain the symptoms of dyspnoea, aphonia, and dysphagia, and it was astonishing how the patient could have respired at all through the narrow opening left by the cicatricial tissue below the glottis. The chief interest, however, centered in the great similarity of the lesions in this unique case with those found in syphilis and lupus of the larynx. He had seen ulcerations in syphilitic laryngitis almost identical in shape and location with those seen in the specimen, and he remembered having seen two or three specimens of lupus of the larynx when in Vienna which bore a strong resemblance to syphilis. Lupus and leprosy of the larynx could not be diagnosed from one another by laryngoscopic examination alone, but other signs and symptoms outside of the larynx had to aid in the diagnosis. Thus, in a syphilitic laryngitis, there were always sharply defined bands of a deep-red color on the free margin of the velum palati. In lupus, affections of the skin of some parts of the body always preceded, coexisted with, or shortly followed the manifestations of the disease in the larynx, while in leprosy the larynx was usually attacked later in the disease, when other portions of the body clearly showed marks of the pest.

Dr. LITTLE remarked that, having conversed with Dr. F. N. Enders, who had seen a great many cases of leprosy in the Sandwich Islands, he had been interested to note that the eyelids were affected in the early stages, ectropion resulting, and the conjunctiva and cornea, or even the whole eyeball, becoming involved. The affection of the eyelids was sometimes the first symptom, or occurred during the first or second year of the disease. The lids were involved in the case described, and the eyeballs subsequently.

DILATATION AND ATHEROMA OF THE PULMONARY ARTERY, WITH AN OPENING THROUGH THE INTERVENTRICULAR SEPTUM.
—Presented by Dr. BRUEN.

Examination of the Heart, Left Side.—Slight ventricular hypertrophy; mitral valves somewhat thickened at the margins, with roughening of their auricular aspects; valves competent. The left auricle was normal, as were also the aorta and the aortic valves. Examination of the right heart was of more interest. Two of the semi-lunar leaflets at the mouth of the pulmonary artery were nearly destroyed by atheromatous changes. The third segment was much thickened, and projected as a leaf-like fold, roughening the mouth of the pulmonary artery. This vessel was dilated to nearly twice its normal size, forming really an aneurismal dilatation. The vessel's walls were covered with

a fringe of vegetations of inflammatory origin or due to atheromatous changes. The right auricle was very small and imperfectly developed, the bulk of its cavity being formed by the auricular appendix. The tricuspid valves were much thickened, but were probably competent. Between the two ventricles was an orifice large enough to admit the forefinger. It was directly beneath one of the tricuspid leaflets, and was lined with endocardium, and must have allowed a free interchange between the blood of the two ventricles. The walls of the right ventricle were thinned and its cavity was somewhat dilated. Dr. Bruen said that this case was interesting because: 1. Perforation of the ventricular septum was often congenital, and dependent on obstruction of the orifice of the pulmonary artery, the perforation being due to the pressure of blood within the replete right ventricle. This pressure caused an arrest in the development of the ventricular septum. The pathology of the present case probably was as given above, but there was no pulmonary artery obstruction. A similar case was recorded in the "Medico-Chirurg. Trans.," vol. xv, by Fletcher. 2. There was no cyanosis. Cyanosis was usually dependent on a deficiency of cardiac evolution, or else on retarded evolution of the pulmonary artery or aorta. As a consequence, there was deficient cardiac power to carry on the circulation; or the pulmonary artery or the aorta was narrower than normal, so that in any of these conditions a venous repletion resulted, and cyanosis, i. e., mixture of the venous and arterial blood, was then not the usual cause of cyanosis, although it might be a factor. Walsh said: "Grant that perforation of the ventricular septum coexists with constriction of the pulmonary orifice, and cyanosis seems to become a certainty." In our case there was an example of incomplete development of the ventricular septum, and deficient development of the right auricle without cyanosis. 3. Pulmonary-artery disease was consistent with a fair amount of general health, and compensation by the right heart might occur, just as in cases of aortic disease. 4. Descriptions of pulmonary-artery disease called attention to bronchitis, pneumonia, hydrothorax, as sequential states. In our case no such complications were present until just before death, when she finally succumbed to congestion of the lungs added to the cardiac state. 5. The aneurism of the pulmonary artery formed a pulsating tumor on the left side of the sternum, between the second and fourth ribs, extending outward from the border of the sternum and including an area covered by a trade dollar. 6. Over the tumor a post-diastolic and a presystolic bruit-like murmur could be heard at a point between the second and fourth ribs, while close to their junction with the sternum a hoarse systolic murmur could be heard. The bruit was localized; the heart systolic murmur was carried out into the entire arterial system.

Dr. Bruen then detailed at length the differential diagnosis of these murmurs. During life, dilatation of the pulmonary artery with mitral obstruction had been the diagnosis. The patient was a woman aged twenty-four years, a syphilitic, and was under observation from November, 1878, to July, 1882.

Dr. ESKRIDGE had not had any difficulty in differentiating a presystolic from a diastolic murmur. He thought the leathery thickening of the mitral valves in the specimen presented by Dr. Bruen was sufficient to give rise to a mitral presystolic murmur. If we adopted the theory of Dr. Austin Flint, Sr., that a mitral presystolic murmur might occur in aortic regurgitation when the mitral valves were perfectly healthy, it seemed to him that there was no difficulty in accounting for the presystolic murmur from the regurgitant blood from the pulmonary artery into the communicating right and left ventricles of this case, especially as thickening, loss of elasticity, and some rigidity of the mitral valves existed. The chronometry of the pulsations that occurred

in the left second intercostal space, he thought, could have been obtained by adopting Sansom's modification of Balfour's method of comparing the time of the occurrence of precordial pulsations.

Dr. SHAKESPEARE said that he had been struck with one point of great interest in connection with inflammation of the lining coat of the pulmonary artery, as evinced by the vegetations. These growths were very rarely found in the venous current. He had certainly never seen any other specimens, although he did not doubt that some had been seen or reported by other observers. Arterial blood seemed a requisite for the evolution of such diseased action. Evidently the site of the perforation being just below the aortic and pulmonary valves brought about just this necessary prerequisite, viz., admixture of arterial blood with the venous.

Dr. WILSON called attention to the evident relation between the incomplete ventricular septum and the condition of the pulmonary artery, which was greatly dilated and atheromatous, and presented the appearances often met with in the aorta, very rarely in this vessel. The wall of the right heart was relatively thickened. This fact, together with the position of the opening in the inter-ventricular wall, which favored the flow of the blood from the left ventricle toward the pulmonary artery, rendered it probable, almost certain, that the more forcible contraction of the left heart had constantly forced a portion of its arterial blood into the right heart, thus increasing the current entering the pulmonary artery, and occasioning, first, hypertrophy of the right ventricle, and, second, a subacute inflammatory process in the pulmonary artery itself, in consequence of the increased volume and force of the blood-current. Dr. Shakespeare's observation that such growths as were here seen required for their existence arterial blood, was in accordance with this view.

SARCOMA OF THE PROSTATE GLAND.—Presented by Dr. W. H. HUGHES. The specimen was taken from a patient in the University Hospital, under the care of Dr. H. R. Wharton:

W. L., aged thirty-five years, admitted to the University Hospital suffering from retention of urine. Before his admission, numerous unsuccessful attempts had been made to empty the bladder by means of a catheter. On admission, the patient complained of much pain in the hypogastric region, which was the seat of a smooth rounded swelling reaching almost to the umbilicus. He stated that some years previously he had gonorrhœa, which had been followed by a troublesome stricture, which had been perfectly relieved by the passage of bougies. For more than a year previous to his admission he had suffered, at irregular intervals, from difficulty in urination. The urine had never been bloody, but its passage had often been attended by great pain. It was found impossible, on account of numerous false passages, to introduce a catheter into the bladder. On introducing a finger into the rectum, the prostate was felt smooth, rounded, and immensely enlarged. The patient was put to bed, ordered suppositories of belladonna and opium, and to have a warm poultice applied to the abdomen. This treatment relieved him almost immediately, and urination became freer. For a few days he did well, but the difficulty in urination soon began to increase, and by the fifth day after his admission the symptoms had become so urgent that it was deemed advisable to repeat the attempt to pass a catheter. This attempt was as futile as the first. Then aspiration of the bladder through the abdominal walls was attempted, but only a small quantity of blood was obtained. In introducing the cannula, it gave the sensation of passing into a solid body, and careful palpation revealed the fact that there really was a solid body apparently occupying the whole bladder. It was now decided to open the urethra at the base of the bladder through the perineum, and the operation known as Cock's was selected. The

operation was followed by the escape of a small amount of urine. After this the patient did well, with the exception of an attack of dysentery, until the ninth day after the operation, when peritonitis suddenly developed. He died on the following day.

Autopsy (two hours after death).—Upon opening the abdomen, a thick, yellowish-red, purulent liquid, having a urinous odor, was found bathing the intestines, the coils of which were everywhere bound together by recent adhesions. The omentum was in places firmly adherent to the intestines, and contained numerous irregular nodulated masses, varying in size from that of a pea to that of a hen's egg. These masses, on section, presented a whitish-yellow color. In the lower part of the abdominal cavity was a large, irregularly shaped tumor, firmly adherent to the small intestines, colon, omentum, and walls of the pelvis. On careful dissection, the tumor was found to originate in the prostate gland. On section, it presented in parts the characteristics of scirrhus; in others, those of encephaloid; in other places there were large loculi, with reddened, irregular, friable walls, filled with a liquid similar to that found in the abdominal cavity, though no connection between these loculi and the abdominal cavity could be found. No trace of normal prostate gland nor seminal vesicles could be discovered. The bladder, containing a few ounces of urine, was found in front of the upper portion of the growth, its upper boundary almost on a line with the umbilicus. Its anterior wall was apparently perfectly normal; its posterior wall, resting on the tumor, was thickened, raised, red, and velvety. The ureters were normal, and opened in the usual position. The urethra, as far as could be seen, ran along the anterior surface of the tumor and was not involved by it. The weight of the growth was five pounds two ounces. The kidneys, stomach, lungs, and intestines were normal. The peritonæum and capsules of the liver and spleen contained several secondary growths. The brain was not examined. Microscopic examination showed the growth to be a typical small-round-celled sarcoma. The secondary deposits were similar in structure to the primary growth. The submucous and muscular tissues of the bladder-walls were somewhat infiltrated. The growths in the capsules of the liver and spleen had commenced to penetrate those organs.

MELANOTIC SARCOMA OF THE ORBIT, WITH METASTASES TO THE LIVER, ETC.—Presented by Dr. SHAKESPEARE.—The patient was an elderly woman who had been operated upon by Dr. Heyl at the Episcopal Hospital some six months before death, the whole contents of the orbit having been then thoroughly removed. Recurrence took place, the cavity being filled with a black fungating mass; the left nostril gave vent to a blackish discharge, and the various internal organs became involved, notably the liver. Death took place from exhaustion. Most of the metastases were entirely melanotic, but some in the liver showed at their periphery a distinct whitish zone. Dr. Shakespeare remarked upon the singular fact that orbital growths were usually melanotic, although they might not spring from the choroid coat of the eye, as in this case, where all pigmented structures had been removed months ago.

C. B. NANCREDE, M. D.,

Recorder.

SULPHOCARBOLATE OF SODIUM FOR VOMITING.—Mr. Philip Miall ("Brit. Med. Jour.," Dec. 16, 1882) refers to the well-known efficiency of this drug in cases of flatulent dyspepsia, and adds that he has found it serviceable as a remedy for vomiting, particularly the vomiting of pregnancy, in doses of seven grains in half an ounce of water. Sometimes, but less often, it relieves vomiting due to morbid states of the uterus, and in one case it seemed to alleviate seasickness.

Reports on the Progress of Medicine.

QUARTERLY REPORT ON PSYCHOLOGICAL MEDICINE.

No. VIII.

By NORTON FOLSOM, M. D.,
BOSTON.

[In connection with the first three articles here summarized, the reporter would suggest that the impossibility of a perfectly satisfactory classification of mental diseases—that is, of one which admits of all cases being so grouped as to satisfy all authorities—is sufficiently demonstrated by the numerous attempts which have been made, and which continue to be made, in the direction of elaboration and minute discrimination, while the most simple systems are still the most generally acceptable.

For statistical purposes, or the comparison of general facts and results, a simple and arbitrary system will always be the most desirable, or, at any rate, until pathological investigation has gone deep enough to warrant classification on anatomical grounds—probably a very distant time. At present the classification in most common use in framing the reports of institutions for the insane is essentially that proposed at the beginning of the present century by Esquirol, comprising the groups of melancholia, mania, monomania, dementia, and imbecility or idiocy. Epilepsy and general paralysis are complications rather than distinct classes. The terms acute and chronic may be justly applied to many cases in several of these classes, but this does not render subdivision necessary, for the same individual who enters an asylum with acute mania, for instance, will, if recovery does not occur, be said to have chronic mania after a period of time varying with the judgment of different observers. Indeed, a classification can apply rigidly to a series of cases only at some one stated time, for change or alternation in the form of disease is very frequent.

For purposes of study in detail, however, much more minute classifications are used. These systems are descriptive rather than definitive, and authorities vary so much in the practical application of fine distinctions that their introduction into statistics is rather to be deprecated. Subdivision and pseudo-scientific nomenclature have been carried to an absurd extent; and it has seemed at times as if new monomanias were invented solely to bring notoriety to the inventor.

Where, however, a group of cases has a sufficiently distinctive form to meet with general recognition instead of repudiation, and especially if any practical points in the prognosis or treatment can be shown to exist in common among them, the study of such a group becomes profitable, and the interest of its natural history is enhanced. It is very rare to find the boundary-lines absolute of such a group, however, and the effort to establish any characteristic pathological condition generally fails completely. A general resemblance in clinical history, or the possession of one or two salient points in common, is frequently held as sufficient ground for setting it up in business as “an independent morbid entity,” with a high-sounding name compounded with more or less violence from the resurrected remains of dead languages. No harm is done if the essentially artificial character of the new disease is borne in mind; but, as in the instances of “kleptomania” and “dipsomania,” very vicious nonsense may be uttered as the result of confounding the facts in the case.]

FOLIE À DOUBLE FORME.—Dr. Achille Foville (“Brain,” Oct., 1882), in an amplification of his article in the “Nouveau dictionnaire de médecine et de chirurgie pratiques,” translated

by Dr. A. R. Urquhart, strongly urges the claims for recognition as a separate disease of what was, almost simultaneously, originally described by Drs. Falret and Baillarger, physicians to the Salpêtrière, under the name of “*Folie à double forme*.” He somewhat naively precedes his definition of the disease by the following quotation from Griesinger, published before the observations above alluded to: “The transition from melancholia to mania and the alternations of these two forms are very common. It is not rare to see the whole disease consisting of a cycle of these two states, which often alternate very regularly.” [The fact is that the whole truth of the matter is here contained in a nutshell.]

The definition of the disease, also called *folie circulaire*, given by Foville, is as follows: “A species of insanity characterized by a prolonged succession of periods of maniacal excitement and of periods of melancholic depression, usually alternating in a regular manner. The duration, intensity, and type of the excitement and depression, and the mode of transition from one to the other, may greatly vary; but their alternate recurrence is constant and pathognomonic. This species of insanity is almost always owing to the development of an hereditary predisposition; and most often it is incurable.

The only element in this definition which is claimed to be absolutely constant is the *alternation*; and yet the tendency to a more or less complete periodicity, the typical development of which is a regular ebb and flow, or *alternation*, is so manifest in nervous disease—in disease in general—and even in healthy vital phenomena, that it seems to be the result of a general law, rather than a distinction peculiar to these cases.

The matter of most practical interest is that, after the regular habit of alternation is once established, it is nearly sure to continue without much change. As it is a confirmed or chronic type of disease, the cause is most frequently found to be of a permanent character, such as heredity or physical injury. It would be very interesting to learn whether, conversely, a large proportion of all the cases of hereditary origin assume the alternating form. It occurs much more frequently in females, and generally before the age of thirty years. The intensity of the disease and the duration of the paroxysms vary extremely in different individuals, but are remarkably constant in repeating themselves in the same person in different alternations. The weight and physical health are thus temporarily affected in different degrees; but, except at the acme of excitement or depression, in cases of severest type, the general health is usually remarkably good, and, as termination in dementia is very rare, the patient is likely to reach a greater age than in other types of disease. The frequency of the paroxysms is variable, but the circle seldom requires more than a year for its completion. In some cases it has been noticed that the depression regularly occurs in winter, and the excitement in summer. The occurrence of apparently lucid intervals is the rule; and in some cases the patient remains for months, and even years, in normal condition. [Such cases as these have given rise to considerable discussion as invalidating the statistics of recovery from insanity. As the patients are recorded as cured every time they are discharged from the asylum, they are said to swell the number unduly, as it would be naturally assumed that the number comprised so many different individuals, and the percentage of recoveries be determined on that basis.]

As has been said, the disease is apt to repeat itself very exactly, and, whatever degree of health is attained to in one interval is attained to in all, through life. In those cases where the normal standard is not quite reached, yet where restraint in an asylum is not continued, there is a special liability to get into trouble with the rest of the world, and some of the medico-legal problems which result are difficult to solve. Vagrancy,

morbid impulses to overt acts, and malicious conduct, are common features in such cases. There are other patients, again, who are able to get along in the world through periods of moderate depression and during lucidity, only requiring hospital care during comparatively short accessions of excitement.

No special anatomical change can be demonstrated as characteristic of these cases. M. Luys has advanced the theory that alternate hyperæmia and anæmia are the underlying conditions, but the proof is lacking. Even if these conditions were proved to accompany the alternations of the disease, it would remain uncertain which was cause and which effect.

THE TREATMENT OF PERIODIC INSANITY.—Dr. H. M. Hurd, of the Eastern Michigan Asylum ("Am. Jour. of Insanity," Oct., 1882), in view of the failure of continuous asylum treatment in periodic insanity, advises experimental changes from ward to ward, or discharge from the asylum when remissions will allow, in the hope of its favorable influence. He has witnessed decided benefit from the administration of hyoscyamine, in the dose of one twentieth of a grain, given upon the eve of an outbreak of circular mania. It produced intoxication lasting several hours, followed by deep sleep, from which the patient awoke clear in mind and free from mental disturbance. In this individual the recurrence of the disease was apparently prevented for several months.

Dr. Hurd remarks that there is rarely such an accurate balancing of opposite conditions as the classic descriptions of *folie circulaire* would indicate.

KATATONIA.—Under this name Dr. Kahlbaum, the superintendent of a private asylum at Görlitz, Prussia, avers that a distinct form of insanity should be recognized, the distinguishing characteristic of which is an irregularity, or, as he phrases it, an insanity, of tension, mental and muscular. The first symptom noticed, as in other forms of insanity, is a change in the temper of the individual. It presents, at times, well-marked motions of a rhythmic character, always under the control of the will—thus differing from chorea. Another feature is its cyclical character, maniacal, melancholic, and cataleptoid conditions alternating with more or less imperfect convulsive attacks; there are also pathetic delusions of grandeur, and a tendency to act and talk theatrically. Erotic manifestations frequently occur, and the ideas have a religious tinge. At any stage, remissions or complete recovery may occur. If the case is to end unfavorably, periods of excitement and stupidity recur more and more frequently, and the patient dies with terminal dementia.

Singular as is the picture presented, the evidence is ample that it represents a definite disorder. Dr. Kiernan, whose article ("Alienist and Neurologist," Oct., 1882) is full and conclusive, after giving Dr. Kahlbaum's views, narrates five cases in detail; and, where opportunity is found for post-mortem examination, the appearances are pathognomonic. The disease is said by Kahlbaum to be very rare, but Dr. Kiernan found the disease in about two per cent. of the whole number admitted to the New York City Asylum. It is by no means so fatal a form of disease as would be at first supposed. Dr. Kiernan has seen ten patients recover out of forty-six. This is the more remarkable as the post-mortems show "a healed-up hydrocephalus and a basilar meningitis." Meynert deduces that the disease has always been preceded by a patho-meningeal process, located at the base of the brain and over the fissure of Sylvius. Dr. Kiernan concludes, from his experience with this disease, and with tubercular meningitis in children, that many of the so-called hydrocephaloid cases are really hydrocephalus, and that tubercular meningeal processes are more frequently recovered from than is generally supposed.

The duration of katatonia is from two to five years. The treatment should be tonic, and stimulants are of service. Conium is indicated by motor disturbance. The nitrite of amyl has seemed to be of benefit in ten cases, and it has caused a pleasurable feeling in all where it has been given. Faradization of the muscles is also recommended. Moral treatment is of importance, as in all forms of insanity.

LUNATIC ASYLUMS IN GREAT BRITAIN.—Dr. P. M. Wise ("Alienist and Neurologist," Oct., 1882) endeavors to state impartially the chief differences existing between the asylums on either side of the Atlantic in the features favorable to British Asylums. He visited eighteen asylums in Great Britain in 1882, thirteen of which were for the care of paupers.

The differences are: in the uniformity and thoroughness of surveillance; in methods of construction, with a view to grouping patients for sleeping and dining purposes in large associate dormitories and halls; in the removal of patients from the apartments occupied at night to others specially designed for day uses; in an efficient night service; in the development of the industrial system; in the absence of mechanical restraint and the greater degree of personal liberty allowed.

Dr. Wise does not absolutely commit himself to the theory that insanity in Great Britain assumes milder forms than with us, though he states that it would so appear at first sight, or else that the class of insane composing their asylum population is quite different from that to be found in ours. He bears cheerful testimony to the admirable character of the results of the English methods.

CHRONIC MORPHINISM.—Dr. H. Obersteiner ("Brain," Oct. 1882) does not advise trying the "weaning cure" for the morphine habit unless there is good reason to expect a successful issue. He finds that in certain cases the starting-point of the habit lies in some mental disturbance. He concludes with the following propositions:

1. A real and persistent result after the "weaning cure" is very often doubtful, or is not obtained; the cure itself may, under certain conditions, endanger life.

2. In most cases the protracted use of morphine in large doses is followed by psychical alterations of a lasting nature, which may amount to decided insanity.

RESTRAINT AND SECLUSION IN AMERICAN INSTITUTIONS FOR THE INSANE.—Dr. H. M. Bannister and Dr. H. N. Moyer ("Jour. of Nerv. and Ment. Dis.," July, 1882) have received statistical information from twenty fairly representative institutions in this country in regard to restraint and seclusion. They conclude that, as they say was already well known, the average use of such means is high in American institutions, and in some of them excessively so. It is shown, however, that practical non-restraint is possible with our methods of asylum construction and our insane population, and that restraint has less value for some of the more important ends for which it is employed than might have been supposed. They infer that restraint is too largely employed in the United States, and that we are behind other countries in this respect, especially Great Britain. They believe, however, that non-restraint is carried beyond reasonable limits in some English institutions.

Other Noteworthy Papers.

BUCKNILL, J. C.—The plea of insanity in the case of Charles Julius Guiteau. "Brain," July, 1882.

CHANNING, W.—Recent progress in the management of lunatic asylums and care of the insane. "Boston Med. and Surg. Jour.," Nov. 9, 1882.

CLEVELAND, D. A.—Lunacy commissions: their relations to

the insane and the public in general. "New England Med. Monthly," Oct., 1882.

DE CASTRO.—Influenza dei perturbamenti sociali.—Suicidio per timore di essere ucciso.—Uso di piu armi. "Gazz. degli ospit.," Sept. 27, 1882.

EVERTS, O.—The order of disorder in mental disease. "Cincinnati Lancet and Clinic," Oct. 21, 1882.

FOLSOM, C. F.—Some obscure mental symptoms of disease. "Med. Com. of the Mass. Med. Soc.," xiii, 1, 1882.

FRIGERIO, L.—Le automutilazioni negli alienati. "Gazz. degli ospit.," Sept. 13, 1882.

HAGENBACH, A. W.—Hereditary insanity. "Chicago Med. Jour. and Exam.," Aug., 1882.

LIÉGEAIS, C.—Asystolie aiguë de cause psychique. "Tribune méd.," Aug. 13, 1882.

MIRAGLIA, G.—Rapporto freniatrico-legale sullo stato di mente di Pasquale Clausi, uxoricida, con osservazioni sulla asimmetria del cranio e del cervello in rapporto alla follia. "Giorn. internaz. delle sci. med.," iv, 7-8, 1882.

PONTOPPIDAN, K.—Om Slægtskabsforholdet mellem Forbrydelse og Sindssygd. "Nord. med. Ark.," xiv, 8, 1882.

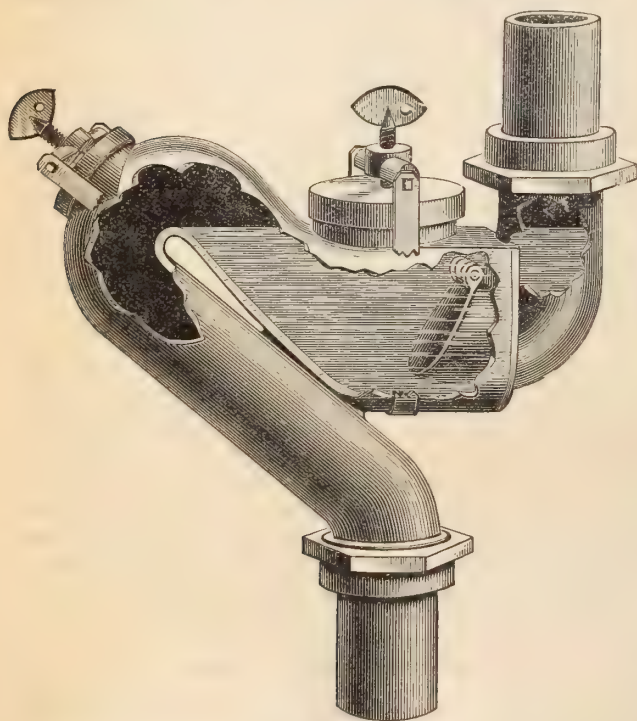
RAAB, W.—Ueber chronischen Wahnsinn nach epileptischer Geistesstörung. "Wien. med. Woch.," Sept. 9, 16, 1882.

VERRIEST.—Observation de trois existences cérébrales distinctes chez le même sujet. "Rev. méd.," July, 1882.

New Inventions, etc.

AN IMPROVED WASTE-PIPE TRAP.

THE device shown in the following cut is a very simple mechanism, being nothing more than an S-trap with the addition of a valve.



It is made wholly of brass, and is easily applied to any waste-pipe. It is so constructed, too, that access may be had to its interior by using no more complicated tool than a nail. It is maintained by the manufacturer, Mr. H. P. Clement, that it is proof against siphoning, and against regurgitation of gas from pressure, thus doing away with

the necessity for ventilating pipes. From our own observation, and from the experience of several well-known members of the profession in its use in their own houses and in hospitals, we regard it as a most manageable and effective device.

Miscellany.

AMIDE BODIES AS ANIMAL NUTRIMENT.—At a meeting of the Physiological Society of Berlin, on June 16th, Professor Zuntz read a paper upon the value of amide bodies as animal nutriment, based on experiments which he made upon a number of rabbits. In each experiment he divided the animals that he was experimenting on into two groups. One of these groups was fed with food-stuffs containing no nitrogen (starch and oil), and with various nutritive salts, while the other rabbits received, in addition to this food, a supply of amide bodies. The object of the experiments was to determine which, if any, of the amide bodies could replace the albumin of the food. Herr Zuntz managed to overcome the distaste of the animals for the monotonous, unstimulating diet (a difficulty which has often to be combated in a disagreeable manner in experiments of this kind), by also giving them small quantities of an alcoholic infusion of hay, and by giving the food that had been refused by the animal as pap or powder, in a firm friable form. The results of the experiments may be shortly summed up thus: Extract of meat, when added to the non-nitrogenous food-stuffs, produced no effect upon the nutrition; the animals died in exactly the same time as without the extract. Asparagine likewise could not take the place of the albumin of the food, but the loss of albumin was about twenty per cent. less in the animals that were fed with the asparagine, in addition to their other food, than in those who were fed on non-nitrogenous food alone. An addition of a mixture of asparagine and some other amide bodies—i. e., leucine, tyrosine, and others, of which one might have presumed that they would together form an albumin material during the process of digestion—had, as a fact, the exactly opposite effect of producing a remarkably larger loss of albumin than the non-nitrogenous diet of the other group of animals that were kept for purposes of comparison. In the same way the addition of the crystallizing decomposition products of albumin which were got by the action of pepsin, had a prejudicial influence, producing a greater loss of albumin. Probably an ammoniate was the active principle in both cases, as it is known to work destructively in the body upon albumin; but it is possible that the amide bodies themselves behaved like ammoniate. These experiments are to be pursued with other amide bodies and with decomposition products of albumin.—*British Medical Journal*.

CAMPHORATED SULPHUR LOTION.—In the "Gazette Hebdomadaire de Médecine et de Chirurgie," M. Pierre Vigier recommends the following modification of the *lotion au soufre et au camphre*: Rose-water, 250 parts, by weight; spirit of camphor (*alcool camphré*), 30 parts; precipitated sulphur, 20 parts; powdered gum, 8 parts.

This, he states, remains a homogeneous mixture for a considerable length of time, and, when in course of time the insoluble constituents have settled, may again be made uniform by gentle agitation.

THE SOY BEAN.—Professor E. Kinch, writing on the subject of the soy bean (*Soja hispida*) in the July number of the "Agricultural Students' Gazette" (Royal Agricultural College, Cirencester), says: This bean, of which there are a dozen or more varieties known in the East, is very largely used as an article of food in Japan and China, where it is manufactured not only into soy, now exported in considerable quantities to Europe, but also into bean-cheese and other forms of food. The soy bean, in its proximate composition, approaches more nearly to animal food than any other known vegetable production, being singularly rich in fat and in albuminoids, and it is therefore a valuable adjunct to the food of the almost vegetarian Japanese. Of late years, especially since the Vienna International Exhibition, many efforts have been made to acclimatize this bean in various parts of the European continent, chiefly in Hungary and Germany. France and Italy have

also attempted it, and some of the experiments have been fairly successful. "Nature" states that Professor Koch is trying to grow some of the varieties in the botanic garden at Cirencester, and though our climate is probably too uncertain, and the temperature often too low, for most of the varieties to attain perfection, still, if any of them could be acclimatized, a valuable leguminous cross would be added to our present list. A detailed analysis is given of the bean as grown in different countries, of several of the foods made from it, of its straw, which is a useful fodder, and of the ash of the bean and straw.—*British Medical Journal*.

VIRUS-ATTENUATION RUN MAD.—Truly, M. Pasteur's doctrine of the attenuation of viruses goes apace; for now Professor Bouley, one of its most enthusiastic partisans, comes forward with a proposal for its extension to small-pox itself. He selects Algeria as a fitting field of operation, and, in a paper just read to the Académie de Médecine, proposes that the Arabs, who have great objections to vaccination, but none at all to inoculation, should be inoculated with the dilute or attenuated virus. The proposition, we are glad to find, was received with almost a storm of disapprobation, so that this fluent speaker had some difficulty in getting his views listened to. To it was objected that the evil for which it was thus proposed to find a remedy is grossly exaggerated, for the Arabs, devastated by epidemics of small-pox, and witnesses to the efficacy of vaccination in their vicinity, have in large numbers abandoned their opposition, and undergo vaccination in great numbers. Moreover, the assisting to keep alive this dangerous virus with all its contagious properties, and the discouragement given to the practice of vaccination—which, whatever may be the case in the country of its origin, has few opponents in France—sufficiently condemned the proposition.—*Medical Times and Gazette*.

LESIONS OF THE TEETH IN LOCOMOTOR ATAXY.—At the meeting of the French Association for the Advancement of Science, on August 30th, a communication was made by M. Th. David upon lesions of the teeth found in locomotor ataxy. The paper was based upon the observation of a single case, and the following are the most important of the conclusions arrived at from an attentive study of it. The alteration consisted of a rapid decay of the anterior part of the crown of almost all the teeth. The altered substance assumed the consistence of touchwood and a reddish color. The enamel still retained its polish, but not its hardness. Beneath those parts the pulp had produced a new layer of secondary dentine, and in most of the front teeth the pulp-cavity was filled up. These alterations had nothing in common with caries, and must be referred to nutritive disturbance resulting from the lesion of the central nervous system. The changes are analogous to those which have already been observed to take place in the nails in the course of locomotor ataxy; they would thus establish a pathological relationship between organs already connected by a common epithelial origin. Locally, these alterations recognize for their immediate cause a functional disturbance or a lesion of the dental pulp. The atrophy which has been shown to exist would be quite comparable to that which is observed in the eye under similar circumstances. Whence the final conclusion that we must attribute to the dental pulp the physiological significance of a sensory organ.—*Medical Times and Gazette*.

A NEW ANIMAL FOOD.—Is the capybara really good to eat? Dr. Saec strongly recommends it for cultivation and domestication, alleging that it is an excellent acquisition for farms and country houses, where, without requiring more care than a rabbit, it will supply as much meat as a sheep, and he believes that it will take a place between the sheep and the pig in Europe, and that, in many ways, it can be substituted for the last-named domestic animal. This capybara, which is found in great abundance in South America, is of the average size of a pig; it can be obtained very easily; it quickly recognizes its master, whom it follows everywhere, and eagerly seeks for caresses. It especially likes to be scratched, and, to attract attention, extends itself full length on one side. It is very clean in its habits. In shape the capybara realizes the normal type of the meat-producing animal, as its body is an almost perfect cylinder; its limbs are short and slender; its tail

and ears are very short; the head alone is large. Its apathetic character makes all nourishment available which it consumes, so that it is not necessary to fatten it; and it can be kept in a limited space. It will thrive in a dry stable, where it should be fed on all kinds of vegetables, herbs, and roots; it likes clean water and a soft litter, and it eats remarkably little for its size.—*British Medical Journal*.

VASO-MOTOR PHYSIOLOGY.—The vaso-motor effects which are produced by faradaic stimulation of the peripheral segment of the lingual nerve have been lately studied by M. Vulpian. This stimulation is well known to cause a considerable dilatation of all the vessels of the corresponding half of the tongue in the region in which this nerve is distributed. The experiment is easily performed on a dog under the influence of morphia, or which has been curarized and subjected to artificial respiration. The mucous membrane in this region, and also on the corresponding side of the frænum, becomes bright red, and a similar change may sometimes be observed in the mucous membrane of the gum on the inner surface of the lower jaw near the canine and incisor teeth. The principal vein of this part of the tongue becomes turgid, and the blood contained in it and its tributaries becomes bright in color, resembling that of arterial blood, while there is a corresponding rise in the temperature of the part. These phenomena are produced sometimes after the lingual artery has been tied, and even after the internal and external carotid arteries of that side have been tied just above their origin, and the carotid itself has been tied in the middle of the neck. Nor are they prevented even by the ligature of the common carotid and the vertebral. The effects are equally marked after the section of the vago-sympathetic trunk, and after excision of the superior cervical ganglion. When the circulation has been definitely arrested, as by the farado-puncture of the animal's heart through the thoracic wall, the opposite half of the tongue becomes pale before that on which the lingual has been faradized. Thus the effect of the stimulation is opposed to the occurrence of the constriction of the vessels, which occurs throughout the body almost immediately after death. Another remarkable fact noted by Vulpian is that at the moment when the dilatation occurs, in consequence of the faradization of the nerve, there is a distinct contraction of the vessels on the opposite half of the tongue. It is not merely the result of the determination of blood from one half of the tongue to the other, but is the effect of a distinct activity of the vaso-constrictor nerves, for there is a distinct darkening of the blood. This condition, however, does not last so long as the dilatation of the vessels on the faradized side. The latter may continue for ten minutes, while the former has disappeared in half a minute. This vaso-constriction appears to be reflex, for it is far less conspicuous if the vago-sympathetic trunk on that side has been previously divided. The lingual nerve seems thus to possess a certain amount of recurrent sensibility, which is manifested by this reflex action when the peripheral extremity of the divided nerves is stimulated.—*Lancet*.

FOOD MAKES THE MAN.—Speaking roughly, about three fourths, by weight, of the body of man is constituted by the fluid he consumes, and the remaining fourth by the solid material he appropriates. It is therefore no figure of speech to say that food makes the man. We might even put the case in a stronger light and affirm that man is his food. It is strictly and literally true, that "A man who drinks beer thinks beer." We make this concession to the teetotallers, and will add that good sound beer is by no means a bad thought factor, whatever may be the intellectual value of the commodity commonly sold and consumed under that name! It can not obviously be a matter of indifference what a man eats and drinks. He is, in fact, choosing his animal and moral character when he selects his food. It is impossible for him to change his inherited nature simply because modifications of development occupy more than an individual life, but he can help to make the particular stock to which he belongs more or less beery, or fleshly, or watery, and so on, by the way he feeds. We know the effect the feeding of animals has on their temper and very natures; how the dog fed on raw meat and chained up so that he can not work off the superfluous nitrogenized material by exercise becomes a savage beast, while the same creature fed on bread and milk would be tame as a lamb. The same law of results is applicable to man, and every

living organism is propagated "in its kind" with a physical and mental likeness. This is the underlying principle of development. Happily the truth is beginning, though slowly and imperfectly, to find a recognition it has long been denied. It is possible that in the natural desire to secure the best and purest supplies of food and drink for man we are pushing matters a little to extremes and becoming ridiculous. Utopia is a long way off, and "Hygeia" has not yet been built. It is, however, desirable that we should aim high and make the teachings of physiological science the precepts of our daily life and conduct. We may not be able to reach our ideal, but progress will be advanced by striving to make its attainment an object. "What to eat, drink, and avoid" is a rational proposition; and if some of us are becoming a little unreasonable in the attempt to solve it, at least we are on the right road, and ought to be encouraged rather than abashed by the not unkindly criticism our endeavors are calling forth.—*Lancet*.

THE CRIMINAL SPREAD OF INFECTION.—Judge Dixon, of New Jersey, in a recent charge to the grand jury of Paterson, called their attention to the case of a man employed at the pest-house in that city as nurse to a small-pox patient, and who, having the germs of the infectious disease about him, went recklessly to his family, communicating the disease to his children, one of whom died. In commenting on this case he said: "If a man, conscious that he carries about with him the germs of a contagious disease, recklessly exposes the health and lives of others, he is a public nuisance and a criminal, and may be held answerable for the results of his conduct. If death occurs through his recklessness, he may be indicted for manslaughter. It is held that where a person knowingly communicates a contagious disease to another and death results, the crime is that of manslaughter." Judge Dixon furthermore added: "The man may be indicted also for spreading the disease by conscious exposure of others thereto by his presence in public places, such as on the streets, in halls, etc. He might be indicted as a public nuisance for endangering the public health in this way even if no consequences had followed. The law provides some penalty for such offenses against the public safety."—*Boston Medical and Surgical Journal*.

RECOVERY FROM HYDROPHOBIA.—At a recent meeting of the Paris Academy of Medicine a memorandum was read by M. Decroix, reporting nine cases of cure of hydrophobia. The Committee on Rabies made, during the year 1874, a series of experiments with medicines said to be useful for curing rabies, in which they made use of pilocarpin three times, and in every case the remedies hastened death by the violent fits they brought on. In the course of his experience M. Decroix met with two cases of rabies which did not end fatally. The conclusions arrived at by the committee are as follows:

First. It has been experimentally demonstrated that rabies may recover spontaneously.

Second. Up to the present no treatment has proved to be anti-hydrophobic, and cases of cure by this or that means may be attributed to the efforts of nature.

Third. All the means used by the committee since 1874, comprising principally injections of pilocarpin, have hastened rather than retarded the death of the subject.

Fourth. Those dogs usually recovered which were left without treatment, as the medicines brought on violent fits, and there is an inclination among medical men to leave men thus attacked in perfect quiet, and only practice experiments on animals. The filing down of dogs' teeth—an easy and almost painless operation—is still the most efficacious preventive of madness.

Fifth. Rabid people left in the dark and kept quiet are not subject to fits, unless they are brought on by excitement or by ordinary medicines, and, "as far as I am concerned," says M. Decroix, "I would rather be attacked by this kind of madness than many other diseases, particularly than that red chancre of smokers."—*Medical Press*.

On Mondays, Wednesdays, and Fridays, at twelve o'clock, during February, March, and April, Dr. J. L. Little will continue his surgical clinic at the New York Post-Graduate Medical School, 213 East Twenty-third Street.

A NEW HAIR-DYE.—The disadvantages attending the use of hair dyes containing lead, and the positive danger attending their use, have induced M. Naquet to search for a liquid which may be used for dyeing the hair, and yet be innocuous. He describes, in the "*Moniteur Scientifique*," a dye which is said to have a progressive action, to produce all shades up to a deep chestnut-color, and yet to be free from all deleterious action. The base of the dye is bismuth. The following is the formula. Bismuth is dissolved in the smallest possible quantity of nitric acid—nearly three parts—and to this liquor a solution in water of tartaric acid, equal in weight to one fourth of the bismuth used, is added, and then a large quantity of water, so as to insure thorough precipitation of the bismuth. The precipitate is filtered off, and washed with water until the washings have lost all acidity. The precipitate is dissolved in a solution of ammonia; and, for this rather more than a fluidounce of solution of ammonia will be required for each ounce of bismuth used. Hyposulphite of soda—three fourths of the weight of the bismuth employed—is then added, and, when the salt is dissolved, the mixture is filtered, and preserved in well-closed bottles. The dye should contain about one twentieth of its weight of bismuth. Such a mixture is said to form an admirable dye, which loses ammonia on exposure to air, and deposits sulphide of bismuth.—*British Medical Journal*.

THE HYGIENIC PROTECTION OF PARIS CHILDREN.—By recent decrees it is forbidden to employ boys under sixteen years old, or girls under eighteen, to furnish the power for hand-loom. Boys between twelve and fourteen years of age, and girls between twelve and sixteen, must not be made to draw loads on the highways; but this is allowed on the level floors of manufactories, etc., provided the load and the vehicle together do not weigh more than 100 kilogrammes. Boys only, when over fourteen years old, may be employed to haul loads on the highway, provided the load and vehicle together do not exceed 100 kilogrammes in weight. Tilers and plumbers are forbidden to employ children on roofs.

HYDROCYANIC ACID IN ALBUMINURIA.—In a letter to the "*Lancet*," Mr. V. G. Webb states that some five years ago, having ordered full doses of hydrocyanic acid to allay vomiting for a patient with diphtheria, he found the next day that the percentage of albumin in the urine was reduced one half; also that he has lately found the drug equally beneficial in scarlatinal nephritis.

THE MARYLAND MEDICAL JOURNAL.—With the number for January 1, 1883, this excellent journal was increased in size by the addition of eight pages to each number.

IODIDE OF BARIUM.—Mr. T. M. Kendall, of New South Wales ("*Brit. Med. Jour.*," Oct. 21, 1882), remarks that this drug, being very poisonous, must be used with caution. He has found it useful in certain cases of chronic eczema, in the form of an ointment made with vaseline, particularly in old cases with much infiltration. In acute cases it aggravates the inflammation.

THE MEDICAL BOARD OF CHARITY HOSPITAL.—The following officers were elected at the annual meeting of the Medical Board of Charity Hospital for the current year: President, Dr. J. H. Ripley; Vice-President, Dr. J. F. Ferguson; Secretary, Dr. Edward S. Peck.

Our French exchanges note the abrogation of the decree by virtue of which the retirement of college professors has been enforced on their attaining a certain age.

ARMY INTELLIGENCE.—*Official List of Changes of Stations and Duties of Officers of the Medical Department, United States Army, from December 30, 1882, to January 6, 1883.*—GORGAS, W. C., Assistant Surgeon. Relieved from the temporary duty to which assigned under Par. 4, S. O. 137, Department of Texas, and will report to the commanding officer, Fort Brown, Texas. Par. 2, S. O. 140, Department of Texas, December 26, 1882. —McKEE, J. C., Surgeon. To report on or before January 1, 1883, to the commanding officer, Fort Winfield Scott, California, for assignment to duty as Post Surgeon. Par. 1, S. O. 197, Department of California, December 28, 1882.

Lectures and Addresses.

LECTURES ON
HUMAN AUTOMATISM.

DELIVERED AT THE LOWELL INSTITUTE, BOSTON.

By WILLIAM B. CARPENTER, M.D., LL.D., F.R.S., ETC.

LECTURE II.

Congenital or Primary Automatism in the Bodies of the Lower Animals and of Man. Mechanism of Reflex Action. Provision made by it for the Maintenance of the Organic Functions. Morbid Forms of Reflex Action.

IN the more detailed discussion of the subject of human automatism on which we are now to enter, I think it just as important to make you perceive what automatism *does*, alike in our corporeal and in our mental nature, as what it *does not*. And it is my intention in this evening's lecture to place before you, in a somewhat connected shape, a general outline of our knowledge of the automatism of creatures below us in the scale of organization, beginning with some of the lowest and simplest plants, and thence ascending gradationally to man. The automatism of man may be considered as partly *original* or *primary*, and partly as *secondary* or *acquired*. In this evening's lecture I shall confine myself to those of his actions which are *originally* automatic; and we shall find that all these are subservient to the maintenance of his organic functions, whose continuous performance is essential to his life.

I pointed out to you in the last lecture that if we could conceive a being to be made up only of bones and ligaments, with muscles to move them, and with a nervous system and organs of sense, and if such a being were capable of sustaining itself, that fabric would really constitute *the man*; but that, as such a fabric could *not* sustain and exert itself (a combination with a number of other organs being requisite, first to build it up, next to keep it in working order, and then, to provide the force to work it), considerable assistance must be given by the nervo-muscular apparatus in the labor of that part of our organization. And we shall find that the primary or originally automatic actions of man are entirely concerned with that part of his life which consists in vegetative or organic activity—the provision and application of food-supply and the elimination of waste-products. In the lower tribes of animals, on the other hand, we find that the *whole* life may be regarded as automatic, there being nothing above the purely *physical* automatism which shows itself in plants. But, as we rise in the series, we shall find superadded to the purely physical automatism what we may call a *sensorial* automatism, in which the excitement of consciousness forms a necessary link. And we shall then ascend into a yet higher grade, in which something like *rational* automatism is apparently exhibited, and in which *feelings* somewhat resembling our own would seem to take part. And, when we rise still higher, we find this rational automatism gradually attaining more and more of an intellectual character, the processes of reasoning becoming more

elaborate and complex, taking a larger and larger part in the animal's life, habits, and conduct, and prompted by feelings and emotions which show a very marked approximation to our own.

I shall commence by adverting to the automatism of some of the very lowest and simplest forms of vegetable life—certain little water-plants which grow, I suppose, in your streams as they do in ours, as thread-like filaments (*Confervæ*), which attach themselves to stones in running streams; and also the broader expansions of such filaments which form the grass-green sea-weeds (*Ulvæ*) that are very common upon most shores, some of them narrow like blades of grass, some of them spreading out into broad, flat, and very thin expansions, each consisting of only a single layer of cells. All these belong to the same general low type of vegetable organization, the different parts being mere repetitions of each other, without any differentiation (as far as we yet know) even for fructification. At a certain stage of their existence the green matter contained in their cells aggregates into little separate bodies; and we can see these with the microscope actively moving about within the cells. If you find one of the grass-green bands of an *Ulva*, attached to a stone on the sea-shore, with its terminal portion colorless, and examine it microscopically at the border of its green portion, you will probably see the very curious spectacle which utterly astonished me when I first witnessed it forty years ago. The white portion being that from which these green particles have already been discharged, the cells at the border of the green portion are in the act of discharging them; and you may see the green particles issuing in numbers through apertures in the cell-walls, and swarming in the drop of water into which they have thus escaped. These motile particles we call zoöspores, the term "spore" being applied to the reproductive particles of these plants, and the prefix "zoö" meaning that they have an activity of motion which makes them resemble animals. These "zoöspores," in some instances, have vibratile *ciliary* filaments (so named from their resemblance to eyelashes) radiating in great numbers from every part of their globular surface; in other instances they are moved by the "lashing" of a single, long, whip-like *flagellum*. In either case, the motile organs are prolongations of the protoplasmic substance of the interior of the spore; and it is by the contractility of this protoplasm, exactly as it is by that of the similar protoplasmic filaments in the lowest tribes of animals of which I shall presently speak, that these active movements are produced.

Now, it is a singular and interesting thing to find this wonderful animal-like activity in what are unquestionably vegetable particles. When these remarkable movements were first noticed by a naturalist of the last century, Vaucher—whose name has been given to the plant in which he observed them, now known as the *Vaucheria*—he very naturally described the organism as a plant in one period of its existence and an animal in the other. We now, however, know of so many instances of vegetable movement that we do not regard it as indicating any affinity, in the minute "zoöspores" of aquatic plants (which such movements serve to disperse), to the animal kingdom; and I may give

you another rather striking example of them in the "motile" state of the minute unicellular plant *Protococcus pluvialis*.

It happened to me, thirty-five years ago, to notice in an open cistern outside my house, which had been newly filled by a thunder-shower with rain-water, that, when the sun shone upon its surface, the water became covered with a green scum, which rose into bubbles. These, I felt sure, were bubbles of oxygen, given off by the decomposition of carbonic acid produced by the action of the green matter under the influence of light; and as that is one of the most characteristic phenomena of vegetation, any organism which exhibits it must be regarded by the physiologist as almost unquestionably belonging to the vegetable kingdom. Yet when I took up some of this green scum and placed it under the microscope, I at once saw that it was composed of separate particles, each furnished with a *flagellum*, by the lashings of which every individual particle was kept in a state of most active motion. Yet at that time Professor Ehrenberg, whose authority was of the highest among microscopists, had described and still maintained that this *Protococcus*, whose vegetable nature no one any longer doubts, was an animal; and he also maintained the animal character of what almost every microscopist now accepts as a vegetable, that beautiful *Volvox*—a transparent sphere, dotted over with green points, and having an incessant rolling motion—which is found in many ponds, and is, doubtless, familiar to many of you. Every one of these green points is an independent vegetable cell, with two *flagella* which are in continual vibration; and the combined lashing of these keeps the whole globe in a state of incessant motion, rolling it sometimes in one way and sometimes in another across the field of view.

Here, then, is a remarkable instance of a purely physical automatism. There is no nervous system to call forth these motions. They arise entirely from the endowments of the protoplasm contained within the vegetable cell, which extends itself into the motile filaments, either *cilia* or *flagella*.

We will now pass from these to a higher form of vegetable automatism, which will, I think, be yet more instructive. I refer to such movements as you may see performed by the sensitive plant (*Mimosa sensitiva*), and by the Venus's fly-trap (*Dionæa muscipula*). In the case of the sensitive plant, touching any one of the leaflets, when the plant is in a state of full activity, is sufficient, first, to cause the folding together of the set of leaflets upon its own pinnule or division of the midrib, and then to produce a like closure of the leaflets on other pinnules arising from the same midrib; and the effect of the irritation further extends to the base of the leaf-stalk itself, the entire leaf suddenly bending down. This condition usually lasts for some little time; and then the leaf-stalk rises, the pinnules unclose, and the leaflets spread out again.

The Venus's fly-trap has a leaf consisting of two broad expanded lobes, with prickles upon the surface of each; and it is sufficient to touch either of these prickles for the lobes to fold together, so that the sharp spines which project from the edge of each cross those of the other, inclosing any unfortunate insect that has alighted upon the leaf. You are all probably aware that this is one of the remarkable cases

investigated by Mr. Darwin, of the feeding of plants upon animal substances, which undoubtedly minister to the life and growth of those particular types of vegetation.

Now, in the Venus's fly-trap, as in the sensitive plant, the contraction is not in the part which is itself irritated, but in a distant part, the touching of one of the thorns that project from the surface of either leaf-lobe producing a contraction in the hinge-joint by which the two leaf-lobes are connected, and causing them to close together; and there is reason to believe, from recent investigations, that, in this and similar cases, the communication between the part touched and the part which contracts is effected by a continuous, or nearly continuous, thread of protoplasm, passing from cell to cell. The nature of this communication is now being made the subject of extremely careful study, both in Germany and in England, with the aid of the most delicate methods of investigation that can be brought to bear upon it. And I believe the conclusion to be a probable one, that we have here something which may be said to be an incipient nervous system. As we shall hereafter see, the essential part of the nervous system of any one of the higher animals, as of our own, is an intensified protoplasm, the function of which, in its simplest form, is purely *internuncial*—transmitting from an *impressible* part the effect of a stimulus applied to itself toward a contractile part which *moves* in response thereto. Thus, in the sensitive plant and Venus's fly-trap, we seem to have a distinct foreshadowing of the lowest form of proper "animal" automatism—"reflex action" of that purely physical kind which is altogether independent of consciousness.

Commencing, however, with the movements of the simplest animalcules, we find their conditions to be essentially the same as those of the vegetable zoöspores—with this difference: that their food, instead of being obtained by the action of light, which enables the plant to elaborate it for itself out of the water and air in which it lives, consists of material already thus prepared, which is for the most part received bodily into the interior of the cell. I will not say that this is a *universal* distinction; but it is certainly the most *characteristic* distinction between the animal and the vegetable, that while the vegetable can combine oxygen, hydrogen, carbon, and nitrogen into such "organic compounds" as starch and protoplasm, the animal is dependent upon organic compounds which are made for it by the plant. And this distinction we find very obvious in a large proportion of what we now designate as true animalcules, separating from Ehrenberg's animalcules a large group which are undoubtedly to be transferred to the vegetable kingdom.

Some of our simplest forms of animalcules are individual cells, each having a definite opening in its cell-wall, through which food-particles are driven into its cell-cavity by the lashing action of the ciliary filaments with which it is beset, these cilia also producing the movement of the animalcule through the water that brings it within reach of the vegetable particles or minuter animalcules on which it lives.

Now, to what are we to liken these animalcules? Are we to consider them as endowed with consciousness, with will, with any of our higher mental attributes? I think certainly not. I believe that the only safe method is to

look out in ourselves for their nearest analogues, and not to credit these simple forms of animal life with any higher attributes than what we find in the corresponding parts of our own bodies. Now, ciliated cells are found clothing the membranous wall of our own internal respiratory passages; from that which lines our nostrils, passing thence through the windpipe, and being thence prolonged throughout the "bronchial" tree in the interior of each lung; and though not swallowing food-particles, but imbibing liquid nutriment from the blood-vessels of the membrane on which it rests, each of these ciliated cells maintains an independent existence, and helps to keep up, by the action of its own cilia, a constant movement over the whole of the respiratory surface, by which its fluid secretion is continually urged toward the outlet of the system of tubes, instead of accumulating and blocking up the interior.

There is another type of about the same grade, of which we have a still more remarkable parallelism within ourselves: this is the *Amœba*, one of the simplest forms of that "Rhizopod" type by which are produced those beautiful minute shells that we term *Foraminifera*.

This *Amœba* is a jelly-speck, which is found in most ponds, and is familiar to almost every microscopist; it is a very sluggish kind of creature compared with the ciliated animalcules; but the watching of its movements is extremely interesting. By the contractility of its protoplasmic substance it is constantly changing its form, and creeping across the field of the microscope; and it also takes in animalcular particles into its own substance, from time to time, not through any definite mouth, but by an extemporized passage into the interior, the ectoderm or outer film of protoplasmic substance being everywhere so soft that there is only a little difference between itself and the rather more liquid interior portion. Thus, any particle over which the creature moves can be received by a sort of gaping at that particular point, the formation of an extemporized mouth leading into the cavity; and in this cavity it undergoes digestion, its nutritive part being appropriated, while, if there be any hard portion to be rejected, this passes out of the superficial layer by an extemporized orifice of exit.

Now, it may surprise many of you to learn that our blood contains immense multitudes of very similar particles. I do not refer to the red corpuscles of the blood, but to the white or colorless corpuscles; for it is one of the most interesting of modern discoveries made by the microscope, that, if we get some of these under view, and keep our glass slide sufficiently warm so as to maintain them at the temperature of the body, we may see, on watching them for an hour or more, most *Amœba*-like changes in them, and even the reception of particles into their interior, as in the *Amœba*. On what ground, then, are we to credit the *Amœba* with any higher attributes than those we know to exist in these colorless corpuscles of the blood? I think we may say that they are creatures of pure automatism. They have a separate existence, they float in the blood-streams, and each passes through a life of its own; and that life contributes in some way not yet understood to our own general life.

There seems to be another form of the same type in our own bodies—the cells at the extremities of the intestinal

villi—the little rootlets through which the nutrient materials provided by the work of digestion are selected and passed on into our absorbent vessels. For it has come out very clearly of late—in the careful investigations which have been made upon the interior structure of the *Hydra*, the common fresh-water polyp, and other forms of the same type—that their digestive cavity has a lining of *amœboid* cells, and that these cells really do the work of absorption, selecting from the products of digestion from the cavity of the stomach, and communicating those products to the other layers which form the walls of the stomach and body. This is a very curious and interesting consideration, and shows how even the body of man is an aggregate of separate existences, each living and acting for itself, and yet all contributing to do his work for him.

Let us go a little higher, and look at some of the more remarkable actions of some of these lower animals, which have a very definite and rhythmical type of movement. I dare say that most of you have seen some forms of the common jelly-fish, and have remarked how they swim through the water with a sort of flapping action, which might remind you of the beating of the heart. Now, this is truly a rhythmical automatism, a movement taking place at regular intervals, which is sustained by the animal's own mechanism. And it has recently been clearly determined that there is here a distinct separation between nerve and muscle; that we are no longer concerned with a homogeneous contractile substance which is (so to speak) both nerve and muscle alike, at once receiving impressions, and responding directly to those impressions, as is the case with the low protoplasmic creatures whose actions we have previously considered; but that there is in one part a substance which receives the impression, and in another part a substance which is called into contraction by that impression through the "internuncial" action of threads of intensified protoplasm, which constitute a low form of nervous system. Mounting a step higher, I may call your attention to an animal which has been for many years a subject of my own special study—the *Comatula*, or "feather-star," which is the commonest type on temperate shores of that great group of *Crinoids*, or "stone-lilies," which, though chiefly known in a fossil state, has been shown by recent researches to be still living at considerable depths in various parts of the oceanic area. The peculiarity of the *Comatula* is that, although in its early state a stalked crinoid, attached at its base to a fixed support, it falls off this stalk at a certain stage of its growth and becomes a free swimming star-fish. The ordinary star-fish, you know, are very sluggish creatures; but this "feather-star" (so designated by my old friend, the late Professor Edward Forbes, who first brought it into special note among us) has a remarkably active, free swimming movement. Instead of having the thick arms of the common star-fish, which are really divisions of the body, it has a central body and five primary rays, each of which divides into two arms, so that there are ten arms altogether; and it is a most interesting and beautiful thing to see the manner in which this creature swims. The alternate arms—we might say all the *right* and all the *left* arms, if the creature had right and left sides—move together, the right arms

first arching up like a swan's neck, then turning down again, and then bending backward; and then the left arms doing exactly the same, with the most perfect rhythm and symmetry. In this creature there is the most perfect division between nerve and muscle. The skeleton of every arm is composed of a gradually tapering series of hundreds of similar calcareous segments; and these segments are (so to speak) hinged one upon another, with a pair of muscles interposed *above* the hinge between each and the next. These muscles are all flexors, bending the successive joints upward one upon another, so that, by their consentaneous action, the arm is coiled into a regular spiral, resembling a watch-spring. These flexor muscles are antagonized by an elastic ligament passing *below* the hinge between each segment and the next, and the action of these is to straighten the arm out again when the muscles are relaxed. Now, I have carefully experimented upon this "feather-star," and I have satisfied myself completely that there is a definite central nervous system from which the stimulation proceeds to these flexor muscles of the arms, and have found it a most interesting problem to work out the particular mode in which that nervous system operates. I must not detain you with any details upon this subject, but merely tell you that we have in this creature one of the most beautiful examples of a rhythmical and concentric action of hundreds of pairs of muscles all working together automatically under the general direction of a central nervous system.

These "feather-stars," like other animals of the *Radiate* type, have all their organs equal and similar to one another; there are no eyes to direct the animal in any particular course; there is nothing that can be called a head, nothing that can be called a tail; their limbs, in swimming, move equally all round; and, when they fix themselves and expand their arms, a little irritation to the tentacles round the mouth will cause the whole of the arms to shut up together, as if to protect the mouth, and then gradually unclosing when the irritation ceases. It is a singular proof of the pure automatism of these movements that I have often noticed that an arm which has been thrown off (a frequent occurrence with these animals), and which has lain in a saucer of sea-water for several days, coiled up in a spiral, has sometimes suddenly uncoiled, and has as suddenly coiled up as it was before, by the alternating action of the ligaments and the muscles, without any obvious cause.

(To be concluded.)

Original Communications.

REGARDING THE NORMAL POSTURE OF THE ADULT UTERUS.

By ANDREW F. CURRIER, M. D.

It would appear to the minds of many that this question was long ago settled. Schultze assumes that he has established the only correct view of the matter ("Zur Klärstellung der Indicationen für Behandlung der Ante- und Retro-versionen und -flexionen der Gebärmutter," Leipzig, 1879), but Fritsch has surpassed him, and gives as the

normal posture of the organ an inclination which implies one of two things—either that the German women, *in their native land*, are differently constructed from the American and English women (admitting the accuracy of Fritsch's observations and examinations), or the perceptions of English and American gynecologists have been dull, and their work has been of a stupid character. The examination of the uterus and its relations upon the dead body does not reveal to us the same facts which are obtained by an examination of the living. The organs and tissues in the dead body are stiffened and contracted, and the uterus itself becomes retroflexed within twenty-four hours after death (Schultze, *op. cit.*), supposing the subject to have been placed upon the back, as is usually the case, and the uterus to have been in a normal posture at the time of death. If the examination be made during life, on the other hand, the impression conveyed by the touch will vary according as the patient is examined in the standing position, upon the back, upon the left side, or upon the hands and knees, unless the organ is fixed by inflammatory deposits, or is deformed in some way. Therefore, the desirability is obvious that writers upon this subject fix upon some standard, as it were; that is to say, some posture which will always be assumed in descriptions of the natural posture of the organ. This will prevent confusion, especially in the minds of beginners, for it should be the aim of teaching to make its definitions as exact as possible; indeed, formulated knowledge can lay claim to the title of science only when established upon such a foundation. What, then, are the tissues and organs which constitute the environment of the uterus when in a condition of health; what the forces at work to keep the organ in a condition of equilibrium? For an answer to the first part of this question there is no recourse but the study of the dead body; by reasoning upon the principles of mechanics we can reach an answer to the second part. If we obtain a transverse pelvic section of an adult female, prepared, perhaps, as Braun prepares his beautiful frozen sections, we find the uterus a center toward which all the surrounding elements converge and contribute. Truly nature has provided generously for that part of the organism where such wonderful work is accomplished—the bladder in front, the rectum behind, areolar tissue where requisite, the broad ligaments and the Fallopian tubes on either side, and midway or thereabout between the bladder and the broad ligaments the thick round ligaments, with more or fewer muscular fibers, as if backward displacement were an event anticipated and provided for. Examining more closely and at a lower level, the utero-sacral ligaments are seen, extending from the posterior superior aspect of the cervix to the second bone of the sacrum in such a way as to obtain the greatest mechanical advantage; the vagina lies underneath, equivalent to a thick strip of muscular tissue, and it is strengthened upon either side by the fibers of the pubo-coccygeal muscle. In front extend the vesico-uterine and vesico-pubic ligaments, or, as they have been termed collectively, the utero-pubic ligament (Studley, "Am. Jour. of Obstet.," xii, 39). These two series of structures mentioned are more particularly the attachments of the uterus,

though the vagina is both an attachment and a support. In order to study the basis of support of the uterus, a vertical antero-posterior pelvic section in the median line will be required. The elements which constitute it are the muscles of the pelvic floor, the sacro-sciatic and perineal ligaments, the perineal septum, the perineal muscles, the vagina, the perineal body, and areolar tissue (Studley, *loc. cit.*). To these Hart adds the sphincter ani ("Obstet. Jour. of Great Britain and Ireland," vii, 447), which, when possessing its normal degree of contraction, is capable of no little resisting force.

Next, the forces which regulate the posture of the uterus will be considered. Since the round and broad ligaments are found to be somewhat lax when examined in what appears to be their normal condition, we may conclude that their object is not that of suspension; besides, there is no necessity for such an hypothesis, considering the basis of support upon which the uterus rests. We would infer, from the situation of the organ in a cavity in which it is more or less movable, that the function of these ligaments is a poising one, as in cases where guy-ropes are used. Savage's experiments seem to confirm this idea (Savage's illustrations of the surgery of the female pelvic organs). Should one of the broad ligaments become thickened and shortened, the uterus must of necessity be drawn to that side, disturbing the arrangement of all the forces acting upon the organ, and resulting in misplacement. Should both be shortened, the uterus must of necessity rise in the pelvis. The same mechanical principles must obtain should excessive shortening of the round ligaments occur, excepting, of course, that the force is exercised in a different direction from that which is exercised by the broad ligaments. The utero-sacral ligaments fill a most important rôle, inserted as they are in nearly a vertical direction, and containing as they do unstriped muscular fibers. Having elasticity and contractility, and drawing the uterus upward and backward, they are well called *musculi retractores uteri* (Schultze, *loc. cit.*). Their action is antagonized by the weight of the intestines which is imposed above the uterus, and also by the utero-pubic ligament. In the latter force the bladder itself must of necessity be a sharer. Against the force which the uterus exerts by its weight, in a downward direction, are opposed the structures described as the basis of support. Doubtless some of them are more important than others, but that is not now to be discussed. Suffice it to say that they must exist in their integrity in order to furnish the normal support. To obtain information in regard to the remaining forces which act upon the uterus, a pelvic section is not sufficient. We must theorize in the matter, and the many theories which exist as to the action of the abdominal muscles and the intestines show the uncertainty that is attached to the subject. That the intestines exert an important influence upon the posture of the uterus seems to be overlooked or ignored by some writers. Gravity must compel their descent into the anterior and posterior cul-de-sacs. Their weight, and the pressure of their contents, solid and gaseous, create an opposing force to the movements of the uterus. To this must be added the ever-intermitting action of the diaphragm upon them, and this

force is further complicated by the action of the abdominal muscles. (We see a good illustration of this force in the effort of straining during defecation.) The two sets of muscles work at nearly a right angle with each other, and the resultant of the two forces is one which corresponds practically with the axis of the superior strait, and this force is transmitted through the intestines to the uterus. (That this is the main force in determining the posture of the uterus is seen in the effect of *bearing down* when the organ is prolapsed, or shows a tendency to prolapse.) Thomas mentions as a support, "which is not powerful, but is too important to be overlooked" ("Diseases of Women," 5th ed., p. 369), the anterior projection in the posterior wall of the vagina, upon which the end of the cervix rests, and calls it the "vaginal promontory"; but I have considered this as a portion of the structure of the vagina, and the vagina was mentioned as a part of the *basis of support*. To *sum up*, then, the mechanical forces at work in keeping the uterus in a condition of stable equilibrium are: 1. The support furnished by the underlying tissues. 2. The poising influence of the round and the broad ligaments. 3. The tension of the utero-sacral ligaments, exerted in an upward and backward direction, which is antagonized by the weight of the intestines, by the utero-pubic ligament, and by the bladder. 4. The pressure of the intestines, *per se*, together with the transmitted force from the diaphragm and the abdominal muscles. When the patient is examined while lying in the dorsal position, the finger is able to define the boundaries of the cervix within the vagina, and, to a certain extent, above the vagina. The body of the organ will fall back through several degrees, aided by the displacement of the intestines, and will be out of reach of the finger which is in the vagina. A further source of difficulty in ascertaining the normal posture by an examination in this position arises from the fact that as the body of the uterus falls back the cervix falls forward, not to the same extent, however, for the center of motion does not correspond with the center of the organ. From this it will also appear that the bimanual method of examination will, in very many cases, be ineffective. In many more cases the contraction of the abdominal muscles, and an abundant deposit of fat, will prevent such an examination. (In very few cases would it seem to be possible to carry the bimanual method to the extent which Schultze recommends for the repositing of a retroflexed uterus. Certainly those abdominal walls must be abnormally lax which will submit to such complete *dimpling* behind the uterus.)

In Sims's position, the great advantages in making an examination consist in the use of Sims's speculum and the uterine sound. The error of posture will arise from the dislodgment of the intestines, and the consequent slight anteversion resulting. In the knee-elbow position it is obvious that either ante flexion or anteversion would occur, if the uterus were normally movable. When the patient is standing we have all the forces at work to enable us to ascertain the normal posture. The intestines have gravitated into the cul-de-sacs and about the fundus, the structures forming the basis of support are in a state of rest, and the same applies to the ligaments. Passing in the finger, we

are able to map out the parts with as great distinctness as in any of the other positions, and we have the assurance, from the disposition of the elements which constitute the environment of the uterus, that we can detect its relations with its environment without being compelled to allow much or little for the shifting of one or another force which is a necessity in either of the other three positions. I do not know that it would be possible, or safe if possible, to employ in this position that most useful adjunct, the sound. We have the other positions, however, in which it can be used if desired; but I think one may become so well educated in examining patients in the standing position that he will be willing to risk a statement as to what he has found without reference to the sound or to any other position.

I stated at the outset that Schultze, in the pamphlet to which I referred (his views are further stated in Essays 50 and 176, Volkmann's "Sammlung"), considers that he has established the normal posture of the uterus. It is these views of his, and also those of Fritsch, which are more exaggerated, which it is the object of this paper to criticise. What has preceded has had this end in view. According to Schultze, the anterior wall of the uterus is nearly parallel to the anterior vaginal wall when the bladder is empty. (His diagram, which is reproduced, does not indicate that such is the case.)

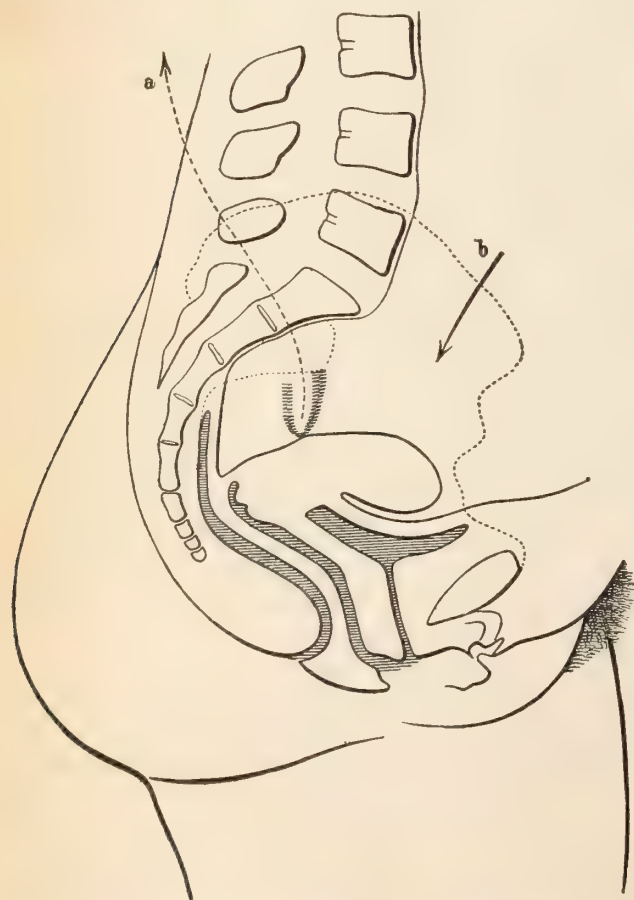


FIG. 1.—Sagittal section through the female pelvis. Normal position of the uterus, with the bladder nearly empty, according to Schultze.

The diagram shows the fundus resting upon the empty bladder, which is said to be normal. As the bladder fills,

the uterus is lifted up, and as it is emptied, the uterus follows it downward and forward, gravity being one cause, when the woman is in the upright position, but the chief one being the intra-abdominal pressure acting upon the posterior surface of the uterus. Thus he considers that the uterus is in a constant state of motion, and that during the



FIG. 2.—Anteversion of the uterus, according to Schultze.

emptying of a full bladder it moves through an angle of 48° . If the preceding statements are true, it should always be possible to feel the fundus through the anterior vaginal wall, or, with a sound, through the bladder. Wing has pointed out ("Boston Med. and Surg. Jour.," cvi, 121) that that which is often supposed to be the body of the uterus, "anteverted or anteverted," is simply a "sagging" of the organ, to which may be added that in such cases there may be even less flexion than exists, according to Schultze, when the bladder is full. The sound would give useful information in such a case. If the fundus rests upon the bladder, then the anterior cul-de-sac must be empty, and not occupied by intestines, in which case we can conceive that Schultze's views might be correct. We have supposed, too, that the bladder is an irritable organ, and would resist the constant pressure of a solid body upon it. When the uterus is anteverted, as Schultze understands anteversion (see Fig. 2), and permanently fixed, from whatever cause, there is still greater reason for consequent irritation of the bladder. The portion which is under the fundus uteri does not yield as the organ fills; consequently the latter dilates unequally, and this is pathological. Clinically, we find patients com-

plaining of troubles in the bladder when such conditions exist. Why we do not always find this same trouble when the uterus is enlarging during the first months of pregnancy I can not say. In many cases there is great trouble at such times, in others there may be contraction of the broad ligaments, or some other compensating change which prevents harm to the bladder from undue pressure; at all events, the condition *then* is physiological, and I do not know that even Schultze claims that the hinge-joint movement continues until the uterus is free in the upper pelvis. It is therefore necessary to bring other evidence that the bladder would not and does not rebel against the constant pressure of the unimpregnated uterus. Again, if the intestines are not in the anterior cul-de-sac, but lie over the posterior surface of the uterus, that organ being, as Schultze says, in a position nearly parallel (as to its anterior wall) with the anterior vaginal wall, and if the intra-abdominal pressure is the chief force which causes the uterus to fall downward and forward, that force must be exerted through the intestines in a vertical direction, in which case the contractile force of the abdominal muscles is entirely ignored, and the bladder as it fills is compelled not only to raise the uterus, but the superimposed weight of the intestines as well, a quantum of work of which I believe it to be incapable. If the preceding criticism is a just one, it would be superfluous to add very much in regard to Fritsch's views. The accompanying diagram represents his idea of the normal posture of the uterus.

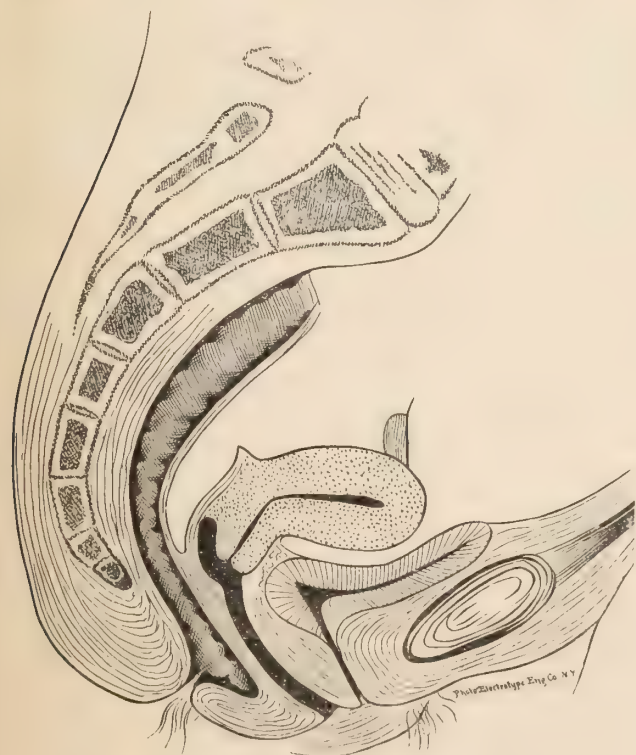


FIG. 3.—Normal position of the uterus. (Fritsch.)

He says ("Die Lageveränderungen der Gebärmutter," Billroth's "Handbuch der Frauenkrankheiten," dritter Abschnitt) that the cervix makes with the corpus uteri, when the bladder is empty, an angle of nearly 90°, and that the healthy uterus can be flexed back and forth easily, rigidity

being due to chronic metritis. He also says that if the angle of flexion is greater than a right angle, or if the amount of flexion is not lessened by the dilatation of the bladder or the congestion of menstruation, the condition is pathological. He bases his statements upon the examination of more than fifteen hundred women, in the majority of whom the posture was that which he describes and figures as normal. With the uterus bent at 90°, or even allowing that it recedes somewhat from that, if the examination be made when the patient is in the dorsal position, the use of the sound must be very difficult—much more so than is the usual experience in this country. Think, too, of flexing a woman's uterus back and forth through 180°, and rigidity *not* resulting. The women whom he examined may have been of that class, which one sees so frequently in German towns and cities, who carry heavy burdens upon the back—tubs of water, bales of rags, and other bulky substances. They are much of the time *bent forward*, and it may be that the constant tension of the abdominal muscles, exerting through the intestines a force working downward and inward, produces the inclination forward of the body of the uterus, which is not the rule here, where women are *comparatively* seldom seen carrying heavy burdens upon the back. Clinical facts in a matter of this kind are better than no end of theorizing, and these, in so far as I have been able to interpret them, incline me to hold the same opinion as that which is expressed by Barnes, Graily Hewitt, Emmet, Thomas, and other well-known English and American gynecologists, which is that the normal posture of the uterus does not vary greatly from the direction which is taken by the pelvic axis, the body of the organ coinciding practically with the axis of the superior strait. This view also explains satisfactorily, at least to my mind, the action of those forces which are developed around the organ, and which must have a determining influence.

CASES OF BRAIN TROUBLE WITHOUT ORGANIC LESION.*

By GASPAR GRISWOLD, M. D.

CAREFUL pathological investigation has of late years shown us how few cases there are of coma, delirium, or other disturbance of a nature to suggest the brain as its origin, which can not be shown to be dependent upon cerebral lesion, or to which some definite cause can not be assigned, such as uræmia, one of the essential fevers, a poison, etc. Yet cases do even now from time to time present themselves in which we see the gravest symptoms of brain trouble develop without being able to satisfactorily explain their occurrence; and the more we know about the definite causes of such symptoms, the more interesting those few cases become in which we observe coma, delirium, and the like, as evidences, apparently, of mere functional disturbance. The subject is most aptly introduced by the following histories of cases:

CASE I.—B., twenty-four years of age, single, American, a gentleman, and well educated. He had had no illness since

* Read before the New York Clinical Society, December 29, 1882.

childhood, and was strong and active, and very temperate as regards both alcohol and tobacco. His nervous temperament was intense and excitable, and he had a great fondness for music and art. For two years he had been employed as clerk in a position which imposed upon him great responsibility and required the closest attention. During the last two months he had become a little "run down," had suffered from indigestion and insomnia, and had lost considerably in weight. He was advised by friends to take a vacation, but persisted in his work and consulted a physician, who prescribed five grains of quinine three times a day; this he continued to take up to the time of his illness, but with little benefit. I was first called to see him at 10.30 P. M. August 20th. I found him comatose, though not profoundly; he could be roused to consciousness, but not to intelligence. A servant who was with him told me that he had complained of weariness all day, had eaten scarcely any dinner at 6 P. M., and had gone to take a walk in the evening. He had returned at about 10 P. M., complaining of headache, and had asked for a hot foot-bath previous to retiring for the night. While he was taking the foot-bath he fainted, and was prevented from falling forward by the servant. On closer examination I found his temperature normal, his pulse soft, compressible, and sixty-five to the minute; his respirations were of normal frequency, not stertorous or sighing, or in any way peculiar. His pupils seemed normal, and reacted to light, although he did not flinch when a light was suddenly brought near his face. He could with difficulty be made to protrude his tongue; it did not deviate. The muscles did not anywhere show rigidity or paralysis. His skin was cool and moist; his head was not hot, and carotid pulsation was not marked. His heart and lungs seemed normal, and examination of the urine was negative. The patient was induced to swallow half an ounce of brandy, and in two hours was so far improved that he could converse, although his attention was bad, and he seemed dazed and stupid. A grain of calomel was administered in the form of a Fuller's tablet. In the morning the patient had not materially improved; his mind was still obscured, and he complained of pain in the head and through the eyes. The attendant reported that he had passed a restless night, sleeping little, and tossing about; at times he had been delirious, addressing imaginary persons, etc. The patient, on being assisted to an erect position, staggered, and could not walk without assistance; no tendency to "gyration" or other remarkable movement was observed. The eyes were examined with the ophthalmoscope, and seemed normal; hearing was good, and examination proved that the ears contained no accumulations of wax.

From the date of his first illness (August 20th) until August 25th the patient's condition continued about the same, with morning remissions and evening exacerbations. His mind would be comparatively clear during the forenoon, so that he could answer simple questions and could walk with assistance. During the afternoon his intelligence became obscured, and by evening he was usually more or less delirious. This delirium was exactly like that of fever. He would talk for hours of his business, adding up columns of figures and giving orders about merchandise to imaginary people whom he believed to be in the room. At such times

he could not recognize any one, even his own sister, but would address her as Joe, the porter, or Smith, the cashier, etc. Unless restrained, he would rise from his bed and start for the stairs, saying that he "must go down town," etc. On August 25th he was better in the morning, as usual, but continued to improve during the day and did not become delirious at evening; from that day he had no further trouble, and immediately became himself again. He stated that he had no recollection of anything that had happened since he fainted while taking the foot-bath; the five days during which he had been ill were a blank to him. During the whole time the patient's temperature, pulse, and respiration continued normal, nor did the most careful examinations, often repeated, reveal anything which might point to a cause for his mental condition. It should here again be emphasized that his condition did not resemble insanity, but was exactly like what is usually seen in meningitis, tumor of the brain, or high fever. The patient was also seen by Dr. G. L. Peabody in consultation, and again carefully examined, but without anything being discovered which could explain his symptoms.

No medication was employed except chloral at night. The patient had no appetite, but took milk enough to nourish him. After his recovery, he was quite weak, but gained strength enough within ten days to take a vacation, from which he returned strong and well again. Up to the present date he enjoys good health, and has had no return of his symptoms.

What can be said in the matter of diagnosis? Febrile affections we can exclude at once. The question of possible poisoning may also be dismissed. Among brain diseases we can certainly throw out active congestion, meningitis, encephalitis, and tumor. Diabetic coma and uræmia are also out of the question. As possible conditions we may enumerate cerebral anæmia, an epileptoid seizure, obscurely situated cerebral hæmorrhage, embolism or thrombosis, and lead encephalopathy. The last is certainly improbable, the patient having no colic, wrist drop, or line on the gums, and no history of exposure; moreover, the attack was not attended with convulsions, as is usually the case in lead. The absence of a convulsion is also against the diagnosis of epilepsy; and the dazed condition of the patient, although not unlike that following an epileptic seizure, lasted too long without a repetition of unconsciousness to sustain the resemblance. The patient was very young for cerebral hæmorrhage; but perhaps the theory of a small thrombosis, embolism, or hæmorrhage, so situated as to give no motor or sensory phenomena, is not without plausibility. It is well established that such lesions, situated in the posterior lobe, may give no other symptoms than obscured intelligence, ushered in by a short period of unconsciousness. The idea that cerebral anæmia, dependent upon exhaustion from overwork and insomnia, was the cause of the patient's symptoms, is no doubt the view that most physicians would take of the case; and yet, if this be true, it is certainly strange that the symptoms should continue a week. In most instances the normal circulation of the brain would be restored after a much shorter interval of rest.

CASE II.—W., aged fifty, American, married, and an author and literary critic by profession. A man of temper-

ate habits, but with a very excitable nervous system, inclined to enthusiasm and absent-mindedness. Mr. W. enjoys good health, and is very active; when he has work on hand he is inclined to spend very little time in eating or sleeping until it is finished. About a year ago Mr. W. came to New York on a visit (he lives in Boston), and began at once to rush about and try to see everything that was of literary or artistic interest. On the third day of his visit he was in a glow of excitement, and was out all day, apparently tireless; returning home just before dinner, he sat down to read until it was ready. Some one passing the half-open door of his room heard a sound of snoring, and, looking in, saw Mr. W., with his book on his knee, slipped down in his chair, and apparently sound asleep. Dinner being ready, attempts were made to rouse him, but in vain. He was lifted to the bed, perfectly limp and lifeless. His face was ghastly pale, with a grayish tinge approaching cyanosis. His breathing was loudly stertorous, and his cheeks puffed out with expiration. The appearances were considered indicative of apoplexy by people of some experience who were present, and physicians were at once sent for in all directions. The first two physicians who arrived were on the point of administering a drop of croton oil, with the idea that the case was one of uræmia, when Dr. Lambert, the family physician, arrived. Dr. Lambert drew some of the urine, and, finding it normal, the croton oil was not given. Further examination proved that the pupils were normal, and that there was no evidence of paralysis or rigidity. The temperature was normal, and the heart and lungs seemed to be healthy. The stertor, coma, and a somewhat feeble and compressible pulse being the only symptoms noted, Dr. Lambert decided to wait for further developments before resorting to any heroic medication. After the coma had lasted two hours, the patient vomited a quantity of undigested food, which he had taken at lunch, and at once began to improve. His consciousness gradually returned, and a dazed condition, alternating with delirium, gradually took the place of coma. In his delirium he frequently referred to the lines which he had been reading at the moment when he became unconscious, and in his saner moments would start up and ask if dinner were not ready. Once, when his attendant was not quick enough to prevent him, he turned over in a dazed way, and fell from the bed to the floor. This seemed to rouse him, and five hours after his first attack his mind was clear again, although he felt weak. The next morning he felt perfectly well again, rose early, and went about as usual. He had never before experienced anything like this attack, and has enjoyed his usual good health ever since.

The striking points in this case are the profoundness of the coma, with cyanosis and stertor. The fact that the symptoms rapidly disappeared after a considerable quantity of undigested food had been vomited gives us a clue to the cause. By way of experiment, dogs have been abundantly fed and then obliged to exercise upon a treadmill; if the dogs be killed after four or five hours, the food is found undigested in the stomach. It is probable that Mr. W.'s digestion was in a similar way arrested by his continual rushing about and intense mental activity. The undigested food in his stomach, then, at length acted as it not infrequently

does in children, and induced coma by causing anæmia of the brain. This cerebral anæmia was doubtless epileptoid in character, and due to arterial spasm of reflex origin; it ceased as soon as the irritant was removed by vomiting, and consciousness then returned. Probably Mr. W.'s excitable nervous system rendered possible a train of phenomena seldom to be observed in adults.

CASE III.—An Englishman, aged forty, married, superintendent of a public institution. He had suffered from obscure ague at times; and, having suffered from headache and general malaise for some weeks last September, he began taking quinine without consulting a physician. For some months previously he had been very much overworked, and had occupied a position in which he was much harassed by numerous cares, so that he was at the time in a condition of physical depression. He had always been a hard-working business-man, and had never had any evidence of mental trouble of any kind. How much quinine he took he does not know; he took it, without measuring it, from a large phial full of the powder. After he had been taking quinine for several days in indefinite quantities, he began to imagine himself followed about the corridors of the institution by crowds of people who were whispering among themselves, or jeering at him, or at times merely watching his movements. This continued several days, during which he was supposed to be insane by the people about him, to whom he had communicated his hallucinations. At this time he was utterly unable to sleep. A rapid and permanent recovery followed seclusion, rest, sleep, and abstinence from quinine. It is now four months since the attack, and he has had no recurrence. He has always been a strictly temperate man, and had evidently not been drinking at the time of his mania.

This case occurred in the practice of Dr. G. L. Peabody, who has kindly contributed the foregoing history to this paper. The case is of great interest in showing that grave symptoms of insanity may develop without other apparent cause than physical depression from overwork; and that these symptoms may at once permanently disappear when the patient has been afforded an opportunity to rest. In the present instance, a hurried and too positive diagnosis would have sent the patient to an asylum, lost him his situation, and damaged his prospects for ever.

AN ANENCEPHALIC MONSTER.*

By W. M. CHAMBERLAIN, M. D.,

PHYSICIAN TO CHARITY HOSPITAL.

This fœtus was born of a primipara twenty years of age, about six months advanced in pregnancy, on the 18th of March, 1882. In the second month of gestation she had a great fright, followed by hysteric convulsions, after which the abdomen increased in size very rapidly. For the opportunity of presenting the specimen I am indebted to the kindness of Dr. T. H. Burchard, to whom it belongs.

The attending physician, Dr. Rae, of Jersey City, reports: "On arriving, I found the abdomen enormously distended,

* The specimen was shown at the New York Obstetrical Society, November 7, 1882.

pains recurring about once in five minutes, the os somewhat dilated and a bag of membranes protruding, which I ruptured; the feet then presented, and the fœtus was readily delivered. The placenta appeared to be normal."

This monster shows a well-formed skin, perfect nails, and a good deal of hair upon the limbs, which are of good shape and proportion. Its extreme length is twenty-four centimetres, and the circumference round the shoulders the same.



FIG. 1.

The weight is one pound five and a half ounces. When placed in an upright posture, the end of the nose is the highest point. Two well-formed nostrils open directly upward. The mouth is large, and, the intermaxillary bone being small, it assumes a triangular shape.

The head is retracted, and the anterior surface of the neck convex and extended. Above the superciliary ridges the two frontal bones are spread out like plates. The hairy scalp extends to within one centimetre of the iliac crests. Beneath this scalp and the integument of the back a dense fibrous layer like an aponeurosis covers in the posterior wall of the thorax. The external lamina is continuous with the pericranium. Between the laminæ superiorly are the frontal bones, approximating their normal position and size, and below are the rudiments of the parietal bones flattened out upon the shoulders.

None of the vertebral arches are formed. The vertebral canal is covered by integument only, and contains only a trace of slimy matter. A probe passes through it into an

irregular cavity beneath the frontal bones. This cavity, being laid open, contains only some soft amorphous matter, and the structure of a large sac which had pushed its way to either side under the inferior and exterior angle of the parietal bones, and the remains now protrude in length about four centimetres in each post-axillary space.



FIG. 2.

The remains of these lateral sacs are so altered by long maceration that it is impossible to determine what the original shape may have been. They must have ruptured before birth. There must have been a large sac, apparently continuous with the cavity of the arachnoid. A residuum of fluid after evacuation, displaced by the breathing, which continued fifteen minutes after birth, distended the loculi of the sac, and suggested the idea that they might be a part of the organs of respiration.

The clavicles are present and well formed, but the sternum is wanting. The cavities of the thorax and abdomen were not opened.

The specimen, according to the classification of Geoffroy St.-Hilaire, which seems to be generally accepted, belongs to the order "*Anencéphaliens*"; but neither the great work of Otto, nor the memoirs of the Museum of Natural History of Paris, nor the records of the London Obstetrical Society for seventeen years, figure or describe any such lateral exstrophy of the cerebral membranes.

Book Notices.

*Recent Works on the Opium Habit.**

OF the making of books upon narcotics and stimulants there is, apparently, no end; and the productions before us are rather examples of book-making than additions to scientific knowledge. Dr. Kane's opusculum contains, here and there, some attempts at accurate observation, but is largely built upon sensational clippings from newspapers and speculative estimates. We have an "estimated" Chinese population; an "estimated" percentage of Chinese who smoke an "estimated" amount of opium per diem; an "estimated" excess (through smuggling and otherwise) of consumption over import of opium, to the extent of about eight thousand pounds per annum; and a consequent estimate that there are about six thousand Americans addicted to opium-smoking. In opposition to the belief that opium is a preventive of malarial poisoning, Dr. Kane cites a case wherein "malarial symptoms of a well-marked type" are attributed to smoking this drug. The principal object of the book, however, is to point out how easily and speedily the vice of opium-smoking can be cured by the author's treatment, consisting in the use of capsicum, digitalis, and cannabis indica in large doses, often repeated; bromides of potassium and sodium in 100-grain doses twice daily; bismuth and catechu in large doses; chloride of gold and sodium every two hours, with fluid extract of gelsemium; massage and electro-massage, with hot baths and cold spray; oxide of zinc and atropine for perspiration; hyoscyamus and chloral to produce sleep; afterward, jaborandi, chloride of ammonium and benzoic acid, nitrate of silver, tonics, phosphorus, and cod-liver oil. As this course is to be compressed into ten days, or, at most, a fortnight, it seems probable that the victim might emerge with little desire for opium or any other drug for some time to come. The author regards smoking as the least injurious way of using opium, and, in comparing its effects with those of alcohol, makes the somewhat startling assertion that the latter, "enters directly into the composition of the tissues." The book concludes with the stereotyped denunciations of England's opium traffic, to the ruin "here and hereafter" of a nation of four hundred millions, among whom the number of opium-smokers is variously estimated at from one million to fifteen millions.

Mr. Moore's brochure, as its title implies, is an apology, not only for the Indo-Chinese opium traffic, but for the use of opium in moderation. From his point of view the abolition of the British opium trade would injure the Chinese themselves by obliging them to extend the culture and use of the native-grown drug, which he regards as more deleterious than the Indian product. He insists that the moderate use of opium, as of alcohol, is, under certain circumstances, even beneficial; that the proportion of those who abuse opium is no greater than that of spirit drunkards; and more than intimates that the introduction of opium has been largely instrumental in rescuing the Chinese from the excessive drinking which marked their earlier history. As prophylactic and curative in malarial regions; as enabling the moderate user to bear extraordinary mental or bodily fatigue, or

to subsist on scanty diet; as a nervine stimulant, especially suited to the constitution, habits, and pecuniary means of the Chinese, and preferable in all respects to alcohol—opium is lauded by the author, who further asserts that the Indian ryots are in no wise forced to cultivate the poppy, but would do so, even in opposition to law, for the sake of the profit arising from supplying the imperative Chinese demand for Indian opium; that the amount of Indian land devoted to such cultivation is too infinitesimally fractional to have any appreciable influence in the production of famine; and that the protests of the Chinese government have been dishonest, actuated chiefly by a fear of the exportation of silver, while it encourages the native cultivation of opium.

Of the third book on our list, the less said, perhaps, the better. In a turgid style the author describes his peculiar philosophy touching various drug habits, with incidental lucubrations on consumption, dyspepsia, uterine disease, tape-worm, parturition, and other topics. In "caseous phthisis," to facilitate the removal of the "infiltration" which is "accumulating in the alveole," he insufflates the following powder: "R Argentic nitras, gr. ij; pulvis Peruvia, ʒj. M. Triturate for ten minutes"—a prescription which, like most of his recipes, would infallibly choke any stickler for latinity. Chlorinated lime is advocated to produce "stuffing" of cancerous tumors; in sciatica, "podophyllin" is indicated, with an æmia to clear out the lower bowels; venesection and "elaterian" are among his resources in acute alcoholism; painless parturition is said to be secured by keeping the pregnant woman upon "a fruit diet," particularly avoiding wheat-flour or other articles containing earthy or calcareous matter which "goes to supply the brittle, unyielding element in bone"—such abstinence rendering "the framework of the fœtus yielding and pliable, enabling it to glide through the pelvis easily." (The author omits to inform us of his method of treating rachitis). Bromide of potassium is unqualifiedly condemned on the sylogistic ground that, since it is largely given to epileptics, and since masturbation is frequently practiced by such patients, ergo its use leaves its victims "pre-disposed to acquire vile and degrading habits." Holding that total abstinence is the only safeguard for the coming man, the writer would have every youth at the age of fourteen put under a deterrent dietetic course wherein "every particle of food must be thoroughly impregnated" with the following mixture: "Whiskey, ʒ ij; sherry wine, ʒ j; port wine, ʒ j; lager beer, ʒ j; gin, ʒ ij; cider, ʒ j; rum, ʒ j; champagne, ʒ j." This menu is to be continued for a week or ten days after nausea and persistent vomiting shall be induced, bearing in mind that "a human being can go for from fifteen to twenty-five days without food of any kind"—until, in fact, the patients "so abhor the taste and smell of liquors as to resign themselves to the horrors of starvation rather than endure the taste." It is assured that forever thereafter they will remain compulsory teetotalers. Altogether, Dr. Hubbard's remarkable treatise impresses us as one eminently calculated to serve as a text for the homilies of the American Academy of Medicine.

A Practical Treatise on the Diseases of the Uterus, Ovaries, and Fallopian Tubes. By A. COURTY, Professor of Clinical Surgery, Montpellier, France. Translated from the third edition by his pupil, AGNES M'LAREN, M. D., M. K. Q. C. P. I. With a Preface by J. MATTHEWS DUNCAN, M. D., LL. D., F. R. S. E., Obstetric Physician to St. Bartholomew's Hospital, London. Philadelphia: P. Blakiston, Son & Co., 1883. Pp. viii-810. [Price, cloth, \$6; sheep, \$7.]

A work like this of Courty's, which, in the original, has been favorably known to the profession for a number of years and has reached its third edition, does not call for an analytical

* "Opium-Smoking in America and China. A Study of its Prevalence and Effects, Immediate and Remote, on the Individual and the Nation." By H. H. KANE, M. D., etc. New York: G. P. Putnam's Sons, 1882. Pp. xiii-156. [Price, \$1.]

"The Other Side of the Opium Question." By W. J. MOORE, L. R. C. P. Edin., M. R. C. S. Eng., L. S. A. Lond., etc. London: J. & A. Churchill, 1882. Pp. 95. [Price, 2s. 6d.]

"The Opium Habit and Alcoholism," etc. By Dr. FRED. HEMAN HUBBARD. New York: A. S. Barnes & Co. Pp. viii-259.

survey of its subject-matter at the hands of the reviewer when it appears in translation. The merits of the book are well known, and, of course, we find in the English version the same characteristics of full and faithful treatment of all the details of the different subjects, the same profuse illustration, the same lucid exposition of the French view of those branches of gynecology of which it treats. We are informed in the preface, by Dr. Duncan, that certain chapters of the third French edition were abridged by the author prior to the making of this translation, but no indication is given as to the portions so modified, nor does it appear that the translator has introduced any notes or original matter of her own—a rather unusual instance of modesty. If, then, we turn our attention to the work of the translator, considered apart from that of the author, it must receive high praise for the smoothness of its English, and for the success with which French idiomatic expressions and mere verbal transliteration are avoided. We have, in short, a good, readable English version, in which but few blemishes are to be noted. Exception may indeed be taken to the use of the word “modifier,” on page 210 and elsewhere, to signify *alterative*, and to “Canquoin” for what is commonly known as *Canquoin's paste*. Weights and measures are commonly given according to the English notation, though occasionally the metric has been allowed to stand. A more detailed index would greatly facilitate reference to a book which is likely to be much used for that purpose, and this deficiency is not made good by fullness in the table of contents. Looked at, however, from the American point of view of to-day, the most striking defect of the book is the absence of any allusion to laceration of the cervix uteri as a pathological condition, as standing in an etiological relation to well-known symptoms, or as a subject of treatment. It is hardly conceivable that the teachings of Emmet are unknown to the professor at Montpellier, and it is hard to understand how so competent a translator could have refrained from adding a note on this important topic. Yet we find the author hovering over the very point, in his remarks on “hypertrophy of the cervix limited to one segment or one lip,” without touching it, and on page 636 there is an illustration, credited to Virchow, of “indurated acne of the cervix,” which presents an almost typical picture of a deep laceration and eversion of that organ.

The Concepts and Theories of Modern Physics. By J. B. STALLO. New York: D. Appleton & Co., 1882. Pp. 308. [International Scientific Series.]

INASMUCH as the series to which this book belongs is designed for the non-expert as well as for the expert, we may venture to interpret the impression which it may give to the former. The author says in his preface that his is not to furnish a new theory of the universe, but that the work is designed as a contribution to the theory of recognition. He conceives that the metaphysical spirit has prevented the just apprehension of the truths of science, and this statement is elaborated in the tenth, eleventh, and twelfth chapters. Metaphysics considers the *summa genera* of abstraction, the highest concepts as the *most*, and the data of sensible experience as the *least* real of all forms of existence. It starts with the subject-object and reasons to the object-object, while modern physical science seeks to rid itself of this fallacious method, and to reason only from sensible experience, with a success which is only partial. In seeking to advance this attempt the author finds it necessary to restate many propositions. Starting with the science of mechanics as the basis of all force, he proceeds to discuss the fundamental hypotheses of chemistry, physics, astronomy, and, indeed, of mathematics, pure and applied, and the bearing upon science of

the most noted systems of philosophy. The chapter on modern transcendental geometry is fairly interesting, bringing out the views of Riemann and Helmholtz concerning a fourth dimension, etc., which, if true, will involve a reconstruction of the existing ideas of sense-perception. The style of the author is not always clear, but we admit that the fault may be due partly to the obscurity of the subject.

As to what the author's theory of the universe is he does not give us a hint. In his first discussions he conveys the impression that he will eventually pin his faith to the atomo-mechanical theory. This impression is entirely destroyed when, in the closing chapter of the book, he summarizes concerning it by affirming that it neither accounts for the phenomena of organic life nor explains the ordinary cases of inorganic physical action. The atomic theory of matter, the mechanical theory of the origin of the universe, and the nebular hypothesis are all proved to be unsatisfactory and fallacious. The book is made up of negations, and reminds one of a man setting up ten-pins only to knock them down. What the author's theory of cognition is the reader is left to conjecture, and it is possible that he will rise from the perusal of the book with a most unsatisfied feeling, excepting that he has finished the task. He will be compelled, however, to admire and respect the great acquirements of the author, which have enabled him to toil in the most varied fields of science, and to go to original sources in several languages and study the most profound and abstruse problems which the human mind is capable of proposing.

Rheumatism, Gout, and Allied Disorders. By MORRIS LONGSTRETH, M. D., one of the Attending Physicians of the Pennsylvania Hospital, etc. New York: William Wood & Co., 1882. Pp. vii-280. [Wood's Library of Standard Medical Authors.]

WE hoped to find in this book either something new upon the subject, or an improved restatement of what had already been written. Our hopes have not been altogether realized. The author has evidently had experience, and has been a good observer, but as a result he can only say: “The position which rheumatism now occupies is that of a group of symptoms, having a common cause, not necessarily connected, without any discovered anatomical basis.” More thorough examination of the blood of rheumatic persons, he suggests, may lead to more accurate knowledge of this disease. As to its origin, cold is about the only cause to which we can definitely point, the lactic-acid theory, the inflammatory theory, and others being insufficient. We think that the vaso-motor theory will bear further study. From what is known of the action of heat and cold upon the vessels near the surface, we can deduce still more, and it may lead to the solving of the vexatious question as to the cause of the inflammation in the joints.

The clinical pictures and the morbid anatomy constitute by far the best parts of the book, evincing matured experience, sufficient investigation into collateral literature, and familiarity with the evidence which is to be obtained in the section-room. As to treatment, the author quotes Garrod in favor of the quinine-alkaline treatment. The use of salicin and its compounds has also been highly satisfactory in his hands.

Gout is discussed in a chapter containing only twenty-six pages, two hundred and fifty having been allotted to rheumatism. The “allied disorders” are not referred to at all, and we can only infer that the author considers this subject sufficiently elucidated in his remarks concerning the complications and concurrent phenomena of rheumatism. The chapter upon gout adds nothing to what Garrod taught years ago, and for this reason its brevity is to be commended.

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THE LIBRARY OF THE SURGEON-GENERAL'S OFFICE.

THE third volume of the "Index-Catalogue of the Library of the Surgeon-General's Office, United States Army," embracing the entries *cholecyanin* to *Dzondi*, excites, first of all, like the preceding volumes, a feeling of admiration for the industry, accuracy, and well-ordered system with which Surgeon Billings and his collaborators are working at the task which they imposed upon themselves. We have before alluded to the surpassing value of the "Index-Catalogue" to our profession, and, as a natural consequence, to the community in general—a value that must be more and more widely appreciated with the appearance of the successive volumes. We understand that the fourth volume is now going through the press, and that during the present session Congress will be asked to grant an appropriation for the printing of the fifth volume. We can not entertain the thought that the national Legislature will hesitate to accede to this request. Any hindrance to the publication of the consecutive volumes of this great work would not only prove a grievous disappointment to those whose labors in the advancement of medicine are dependent in great measure upon this means of rendering its literature available to them, but it would retard the progress of the nation by just so much as American physicians would find themselves hampered in the effort to keep pace with what is being achieved elsewhere. No country can afford to refuse any reasonable aid to the improvement of a department of knowledge so intimately connected with the national well-being as that of medicine.

Besides the "Index-Catalogue," the "Medical and Surgical History of the War of the Rebellion," of which it is expected that the third surgical volume will be laid before Congress during the present session, is a work that not only adds luster to the medical corps of the army, as well as to their temporary coadjutors drawn from civil life during the late war, but is also helping most powerfully to raise military medicine to a higher plane of efficiency than it has ever attained to before. We are under the impression that the Homeric dictum,

"A wise physician, skilled our wounds to heal,
Is more than armies to the common weal,"

has never been questioned. Of how much more importance, then, is it for a nation to provide every possible means to enable a generation of physicians—men from whom its army medical corps must be recruited from time to time—to begin where their predecessors left off, rather than waste the better portion of their energies in reaching what might have been their point of departure. The country, therefore, can not allow either of these two great works to be delayed or crippled in its completion.

The consideration of these literary undertakings naturally

leads us to reflect upon an institution that is not only the pabulum of one of them, and, to a certain extent, the nursery of the other, but also, in a way quite independent of either, a factor of the first importance among the sources of the future achievements that may be expected of medicine in this country. We refer to the library of the Surgeon-General's office, containing nearly sixty thousand volumes and more than that number of pamphlets—all on medicine and its branches. It is said there is a scheme on foot to deprive the library of this special and independent character by making it part and parcel of the Library of Congress. We can not see that any advantage would accrue to the public interest by such a consolidation. On the contrary, it does seem that, removed from the charge of those who have made it what it is, ingulfed in a huge mass of general literature, and placed where systematic readers would be repelled rather than attracted, the library of the Surgeon-General's office would be shorn of much of its present usefulness.

The building in which the library is now stored is indeed inadequate to the purpose, and not well adapted to the safe-keeping of the treasures it holds; and it is true that the library of Congress stands some chance of soon being provided with an ample fire-proof building. These considerations, however, do not seem to us to constitute a good reason for the absorption of the lesser by the greater collection. No library is absolutely assured against accidents; it is well, then, not to consolidate elements so diverse as a general and a special library, but rather to consult both utility and prudence by keeping them apart. Yet, by all means the library of the Surgeon-General's office should be suitably housed. A building to accommodate both the library and the Army Medical Museum, as suggested in a recent report by the Surgeon-General, it seems to us incumbent on Congress to provide for. We have reason to think that this is the general wish of the profession, and certainly, since the library owes much of its magnitude to contributions from physicians in civil life, that wish has a solid claim to consideration.

MEDICAL ETHICS IN NEW ORLEANS.

WE have been much interested by an address recently delivered before the New Orleans Medical and Surgical Association, on the occasion of its ninth anniversary, by the outgoing President, Dr. Joseph Holt. We beg to thank the author for a copy of the address, in pamphlet form, reprinted from the "New Orleans Medical and Surgical Journal."

It seems that, although the association is but nine years old, and although it was contemptuously prophesied at the outset that it would collapse within six months, it has not only had a creditable career as regards the ordinary work of medical societies, but has also exerted a powerful influence in bringing the members of the profession in New Orleans into a state of harmony and mutual esteem. In short, it has become a power, and its energy has been exerted for the common good.

We infer that the relations of New Orleans physicians to each other were about as discouraging as they could be at the time the association was organized. Previous attempts to establish medical societies had failed to result in any lasting organi-

zation, but, dying like noxious weeds, had, to follow Dr. Holt's diction, left behind them baneful seeds that sprouted and grew and brought forth fruits—hatreds, criminations and recriminations, backbiting, quarreling, strife, and all manner of uncharitableness. Even casual conversation, he adds, was burdened with the recital of some injurious story or severe criticism of another. With few exceptions, physicians avoided each other with suspicion and contempt. As for the societies that had been started, very little was done by them in the way of worthy papers or searching discussion on any subject in medicine or the collateral sciences. Such matters were considered irrelevant; the members "asked no odds of science," but busied themselves with ethics. They wrestled with ethics, and were thrown at every round.

Such was the state of things when a few of the younger men, not yet hopelessly saturated with prejudice, began the gloomy undertaking of bringing order out of chaos. "A sense of unseen danger," says Dr. Holt, "compelled the inquiry—What is the stone of stumbling and rock of offense upon which these associations have wrecked themselves? Too much legislation. What was the cause of death? They were drowned in too much law. Why does it delight medical men to legislate and create much law? Because they, like their ecclesiastical brethren, are conservative and behind the democratic spirit of the age. They love to exercise authority one over another, and hallow the precepts and examples of their predecessors, back to the darker ages, and so venerate and adhere to the methods of discipline through '*the medicinal pain*.'" But those young men succeeded in their undertaking, and their success was due, as we deduce from Dr. Holt's statements, to their letting ethics alone.

We regret that the space at our disposal will not allow us to follow Dr. Holt's vigorous portrayal further; but we have said enough to show its purport. So far as we can judge, Dr. Holt has given a truthful picture of the matters with which he deals, and we infer that for the past nine years New Orleans has been practically without a code of medical ethics; and yet the association that brought this state of things to pass is the only one that has achieved an assured position in that city. If in any way the interests of the New Orleans profession have been injured by the change, it would be well to have the fact made known, that their brethren throughout the country may view their experience in the light of all the information that can be brought to bear on it.

THE NEW PHARMACOPEIA.

III.

THERE are some omissions that seem to us noteworthy. We do not refer to drugs and preparations dropped from the list, but to matter which might have been given with advantage, we think, with the list as it stands. In the item of synonyms, the committee were justified in declining to give them *in extenso*, but in some instances they seem to have erred in the other direction. We would note the following examples: In addition to chloride of ammonium, the term muriate of ammonia, being

very commonly employed, would be of assistance to many who have not yet familiarized themselves with modern nomenclature; and, for the same reason, it would have been well to give podophyllin as a synonym of resin of podophyllum. In a number of instances a service has been rendered the reader by specifying the nature of a given salt—whether, for instance, the salt is ferrous or ferric, and the like. We should have been glad to see this information given in all cases. The English equivalent of saccharum is given simply as sugar. Cane-sugar is undoubtedly meant, and we think it should have been so stated. Sulphate of cinchonidine is described as "the neutral sulphate of an alkaloid prepared from certain species of cinchona," etc.—*which* alkaloid, is not specified. Of course, it is quite obvious which one is meant; the point is, that the alkaloid itself is not described, but only its sulphate. Heavy magnesia is amply designated by the title magnesia ponderosa, but light magnesia is called simply magnesia.

We think an error has been committed in not giving processes for the manufacture of drugs in all instances. To be sure, it is only in regard to preparations that are seldom if ever made by the apothecary that these processes have been omitted, but we think those who buy the book are entitled to just such information as would have been supplied by their insertion. Moreover, we can conceive of circumstances under which it would be highly desirable for an apothecary to make an alkaloid, for example. As matters stand now, so important a remedial agent as aconitine is not officinal—simply, we infer, because such various substances figure under that name in the market, and because our knowledge of what relates to the best mode or modes of making aconitine is exceedingly vague and unsatisfactory. Now, it could not reasonably be expected of the committee that they should turn this chaos into order, but the question arises whether they would not have done well to specify some one of the various substances that pass under the name of aconitine, as a provisional adjustment of the matter, pending the next decennial revision. Certain it is that the profession will go on using so-called aconitine, and we fear it is inevitable that any future summary of the experience that may be recorded with the article will be sadly lacking in definiteness, owing to the uncertainty as to what the putative aconitine really was in the various instances involved—an uncertainty that might have been done away with in a measure by making some one of the aconitines in the market officinal.

THE NEW YORK ACADEMY OF MEDICINE.—At a recent meeting of the Academy the following officers were elected: President, Dr. Fordyce Barker; Vice-President, Dr. Horace P. Farnham; Secretary, Dr. W. H. Katzenbach; Corresponding Secretary, Dr. John G. Adams; Treasurer, Dr. W. F. Cushman. Dr. Gouverneur M. Smith was elected a Trustee; Dr. Charles Wright, Treasurer of the Board of Trustees; Dr. E. L. Partridge, a member of the Committee on Admissions; Dr. H. E. Crampton, to the Committee on Ethics; Dr. John C. Dalton, to the Committee on Education; and Dr. A. McLane Hamilton, to the Library Committee.

DR. J. BURDON SANDERSON has been made Waynflete Professor of Physiology in the University of Oxford.

Proceedings of Societies.

NEW YORK SURGICAL SOCIETY.

A STATED meeting was held December 12, 1882, Dr. T. M. MARKOE, President, in the chair.

EMPHYEMA; PERFORATION OF THE BRONCHI AND THE DIAPHRAGM; RECOVERY.—Dr. F. LANGE presented a male patient, nineteen years of age, with the following history: He was a healthy member of a healthy family, and a student. After repeated attacks of gastric disturbance, in the summer of 1881, he was taken, September 2d of that year, with severe gastro-intestinal catarrh, which became so obstinate that he was confined to the bed from the eighth to the fifteenth of that month, when he was under the care of Dr. Henkel. He had only a moderate fever, but gradually lost flesh and strength. Very soon after this, a deep-seated abscess developed on the inner aspect of the arm, and it seemed to take its origin in the muscular substance of the biceps. Dr. Lange opened the abscess in the presence of Dr. Henkel on the 26th of September, and the wound healed without further trouble, but the patient did not rally entirely. On the 7th of October he was taken quite suddenly with severe pain in the lower part of the thorax, in the right side, and went to bed again. Very soon afterward the physical signs of pleuritic effusion became apparent, and, in a comparatively short time, the level of the fluid was as high as the middle of the scapula. The presence of crepitus and near bronchial breathing above the line of dullness made it probable that the inflammatory process, to some extent, affected the lung tissue. The area of dullness was considerably smaller in the axillary region than behind, and was almost absent in front. There was continued fever, with exacerbations at night, and the patient had no appetite and lost flesh and strength rapidly. On the night of the 19th of October perforation of the bronchi occurred, and large quantities of pus were expectorated. On the following day the patient felt much relieved, although he was quite exhausted. Dr. Henkel then found the physical signs of pyo-pneumo-thorax, especially the metallic sounds. The patient did not rally as had been expected, the fever did not cease, and the debility increased. It was impossible to make a thorough examination of the chest, on account of the extreme weakness of the patient, but it was ascertained that the respiratory murmur could be heard from above downward to the fourth intercostal space in front, and to the middle of the scapula behind. At the latter point the breathing was amphoric in character. The level of the fluid was considerably lower down. Succussion sound could be obtained distinctly. Dr. Lange saw the patient again in consultation on the 23d of October, and, from the history of the case, felt certain that there was pus in the pleural cavity, but aspiration gave a negative result. Puncture was made at four different places, but only a few drops of blood mixed with air were obtained. Assuming that the collection of pus might be near the center of the lung, deep punctures were made. Dr. Lange had already determined to desist from further surgical interference when he discovered, at the lowest part of the thorax, toward the lumbar region, and against the lateral border of the sacro-lumbalis, air under his fingers on pressure upon the deep tissues. He punctured at that point, found pus, and then opened the cavity by a free incision. There was an abscess below the diaphragm, along the under surface of which the finger could be passed after being introduced through the incision. Apparently the empyema had perforated the diaphragm. The expectoration very soon ceased, and the patient made a rapid recovery. With the exception of slight retraction of the lower and front part of the right side of

the chest, with diminished respiratory murmur in that region, there was scarcely any difference to be noticed when the two sides were compared. Dr. Lange thought that the point at which perforation of the diaphragm occurred was possibly at the gap between the vertebral and costal part of that muscle, which is sometimes very large. He was unable to make out whether the abscess was intra- or extra-peritoneal, but thought it was probably the latter. The kidney, on account of swelling and infiltration of tissues around it, could not be felt distinctly. The outline of the liver was recognizable by palpation.

Last summer Dr. Lange was shown, at Professor Thiersch's clinic, in Leipzig, a patient who had sought admission because of a freely discharging fistula over the anterior aspect of the right femur. The etiology of the abscess became apparent when purulent expectoration began simultaneously with the cessation of discharge of pus from the fistula. The patient stated that this had occurred several times, and examination of the chest revealed upon the right side some evidence of an encapsulated empyema, for which thoracentesis, with resection of a rib, was performed. Recovery followed rapidly. Dr. Lange was inclined to believe, although unable to prove it, that there was a causal relation between the abscess in the biceps and the empyema, the latter being the result of an embolic process.

In reply to a question, he stated that the largest collection of pus was above the diaphragm; probably a pint being in the cavity below it.

The PRESIDENT remarked that in a similar case he found the accumulation of pus much larger below than above the diaphragm, pressing into and upon the abdominal cavity.

Dr. ALFRED C. POST asked which occurred most frequently, abscess originating in the thoracic cavity, with perforation downward, or abscess beginning in or near the liver, with perforation upward.

Dr. CHARLES K. BRIDDON replied that he thought perforation upward occurred most frequently. In a similar case admitted to the Presbyterian Hospital, probably a year ago, the cavity of the chest had been aspirated and a large quantity of pus removed. There was dullness on percussion up to the spine of the scapula behind and to a line nearly upon the same level in the axillary region, and there was a large area of dullness in front. There was also a marked bulging in the neighborhood of the liver, which was mapped out quite accurately—the area occupied by an enlarged liver. Fluctuation was detected by palpation over this large swelling, and the sensation could be distinctly felt carried through to the lumbar region. Dr. McBride, one of the visiting physicians, examined the patient, and regarded it as a case of perinephritic abscess which had pressed the diaphragm upward, developing a condition simulating empyema. Dr. Briddon attempted to aspirate from behind, and passed the needle three or four inches deep without obtaining anything. He then aspirated in front and removed a large quantity of bloody serum. There was no appearance to the naked eye of pus in the fluid, but the microscope revealed a certain number of pus corpuscles. He aspirated several times subsequently, and obtained the same kind of fluid, but never at any time fluid which had the usual appearance of pus. The patient subsequently came under the care of Dr. L. A. Stimson, who made an incision behind into the cavity of the chest and gave exit to a large quantity of pus. The patient subsequently expectorated large quantities of pus, and it was noticed that when the expectoration was obstructed, or deficient in quantity, the sub-diaphragmatic swelling increased in size. At the time he had some doubt as to whether the abscess was sub-diaphragmatic or not.

Dr. LEROY M. YALE added an item in the clinical history which filled up an interspace between the service of Dr. Brid-

don and that of Dr. Stimson. He saw the patient soon after Dr. Briddon first saw him. The man came into the hospital one afternoon greatly oppressed in breathing, and Dr. Yale aspirated his thorax and drew away a little more than ten pints of pus. This was followed by the operation already alluded to, and performed by Dr. Stimson. As he recollected, Dr. Stimson was not quite sure where the cavity was, even after the operation had been performed. Dr. Yale thought, however, the opinion of the majority of the visiting surgeons was that the case was one of perinephritic abscess which had worked its way upward.

Dr. LANGE then read a paper entitled ANATOMICAL AND CLINICAL CONSIDERATIONS CONCERNING THE RETRO-PERITONEAL SPACE IN THE REGION OF THE LAST RIB.

Dr. W. S. HALSTED asked Dr. Lange if he believed that the lower limit of the pleural cavity was lower than that which had been given by Dr. Hull.

Dr. LANGE replied that in some cases it was much lower, and in other cases it was higher. On the average, however, he should say that it was lower.

Dr. ROBERT F. WEIR remarked that it was not often we had the opportunity of testing upon the living subject the accuracy of the remarks made by Dr. Lange. Recently, however, he had had the opportunity of cutting down upon the tissues in that region which were tolerably normal. The operation was one for making fast or anchoring a movable kidney. In that instance he found that the kidney fat, in a patient only moderately stout, was, on being incised or torn through, capable of being readily separated, and in that manner enabling him to expose the kidney, and by traction on this investing tissue to raise the organ toward the surface quite satisfactorily. However, even in this case of movable kidney there was considerable difficulty in reaching and appreciating the pelvis of the organ. He put his finger in for the purpose of education, because one or two years ago he had placed upon record the view that in those cases in which there had been for years previous signs of obstruction of one ureter, and then signs of obstruction in the other ureter developed, one might proceed to a lumbar incision, and open the pelvis of the kidney or the ureter above the site of obstruction with a view to saving the patient's life, an operation which had recently, he had read, been performed by Bardenheuer with success.

Dr. LANGE remarked that the position of the kidney could be changed considerably in a lateral direction. He had also found that if the lower part of the kidney was pulled upward and laterally, the entire organ would be pulled not only laterally, but at the same time its lower edge would be turned upward and made to perform a sort of torsion.

Dr. BRIDDON asked Dr. Lange what incision he would make in nephrectomy.

Dr. LANGE replied that he would make an incision extending from the apex of the last rib if that could be felt; in other words, make Czerny's incision. If the rib could not be felt, he would take the line of the sacro-lumbalis, or the quadratus lumborum muscle. In reply to a question by Dr. Halsted, he remarked that counting from the spines could hardly be depended upon as giving proper directions for making the incision.

VESICAL CALCULUS.—Dr. H. B. SANDS presented five small vesical calculi, the largest being one half of an inch, and the smallest about one third of an inch in diameter, which he had removed thirteen days previously by lateral lithotomy. The interest of the case consisted in the fact that this operation had to be performed in the place of the crushing operation, which would have naturally been selected for the removal of stones of this size. The patient was a man fifty-seven years of age, who had suffered from symptoms of stone for three years. He was seen by Dr. Van Buren between two and three years ago, when

it was discovered that his prostate gland was unusually large. On that occasion a sound was introduced into the bladder, but a stone was not detected. Some doubt seemed to have been felt by Dr. Van Buren as to whether or not a stone was present, for he told the patient that he wished him to return for another examination. Considerable irritation following this exploration, the patient did not return to have it repeated. He continued to suffer more or less from cystitis and irritable bladder, and, about two months previous to the time when Dr. Sands first saw him, his symptoms became very severe. The patient suffered from spasmodic contraction of the bladder, accompanied with great pain. Owing to prostatic hypertrophy, he had for nearly two months been unable to evacuate the bladder except by means of a catheter, which, however, was readily introduced. Previous to Dr. Sands's visit the patient had been seen by Dr. Doughty, who had sounded him upon three occasions. At the first examination a calculus was detected, but it was observed that the sound, a Thompson's searcher, could not be moved as freely as usual in the bladder. The second and third examinations failed to detect any stone. When Dr. Sands visited the patient he administered ether, and made a careful exploration of the bladder and rectum. An instrument with a large curve passed readily into the bladder, but one having the curve of Thompson's sound could not be made to enter. This fact had been previously noticed by Dr. Doughty. The prostate, when examined by the rectum, was found to be exceedingly large. The urethra was measured, and was ascertained to be nine and a half or ten inches in length. When the Thompson's searcher was introduced it would pass the entire length of the instrument, which was nine and a half inches, and still its point did not enter the bladder. The instrument seemed to be arrested by some bar of prostatic tissue. Introducing the instrument as far as it would go, Dr. Sands endeavored to move it, but the point remained nearly stationary, apparently grating against a rough surface of prostatic tissue. A stone was detected, situated upon the patient's left side, and apparently just at the neck of the bladder. Dr. Sands decided to perform lateral lithotomy, and thirteen days ago he removed the five calculi presented; four were whole, and the fifth one was in fragments. Each calculus consisted of a uric-acid nucleus, covered with concentric layers of phosphates. The patient, a few hours after the operation, had a chill, and began to suffer from retention of urine. Dr. J. C. Hutchison, who had assisted at the operation, was called, and succeeded in introducing an instrument into the bladder through the penis; using this as a guide, he introduced a Nélaton's catheter through the perineal wound into the bladder, and tied it in position. This gave the patient complete relief; and, through the instrument remaining in the wound, the urine was allowed to trickle for eleven days. About two days after the catheter was introduced it was noticed that the point of the instrument tended to escape from the bladder into the deeper part of the urethra. Believing that it would be better to let the instrument lie thus in the wound than in the bladder, thus preventing the liability to incrustation, it was allowed to do so, and every two or three hours it was introduced far enough to allow the urine to escape. Two days ago the catheter was removed from the wound, and has since been introduced through the penis whenever necessary.

Dr. Sands regarded the case as interesting in two respects. In the first place, it afforded an illustration of the fact that, even when the stone was small, all cases of vesical calculi could not be treated by the crushing operation. A similar case came under his observation about six weeks ago, in which he was obliged to perform lithotomy and remove a stone not larger than an almond, because he failed, after repeated attempts, to seize the calculus with the lithotrite. In this case there was no

difficulty in inserting the instrument into the bladder, but it could not be made to seize the stone, which lay in a pouch behind the prostate. This cavity, which was apparently bounded behind by a muscular band extending between the orifices of the ureters, formed a cavity which was not more than one inch in its longest diameter, large enough to contain a stone, but not large enough to allow the blades of the lithotrite to open and seize it.

The second point of interest was the occurrence of retention after the operation of lateral lithotomy in which a pretty free incision was made. This was the second case in which this rare complication had followed lateral lithotomy in his practice. Usually the urine flows freely from the wound, and catheterism is not necessary. In the other case, as in this, the prostate gland was considerably enlarged, and he inferred from his experience that when lateral lithotomy is performed under such circumstances, especially where the bladder is weak, the proper course would be, after extraction of the stone, to wash out the bladder, insert a flexible catheter, and allow it to remain in position. In addition, he believed it to be advisable to allow the point of the instrument to recede from within the bladder, and subsequently to push it forward at regular intervals to permit the escape of the urine.

Dr. Post referred to a case in which he assisted the late Dr. Buck in the performance of lateral lithotomy, and retention followed the operation. On introducing the catheter the next day, a large quantity of urine was drawn off. In that instance a fatal result occurred. There had not been retention before the operation.

Dr. WEIR referred to a case in which Dr. Buck operated, and in which retention followed the operation; but in that instance another calculus was found in the bladder.

Dr. Post remarked that Mr. Liston, of Edinburgh, once remarked to him that he was in the habit of introducing a catheter and allowing it to remain after performing lithotomy, because he believed that the safety of the patient was promoted by it.

PTOSIS WITHOUT STRABISMUS, AND AMAUROSIS WITHOUT A DILATED OR SENSITIVE PUPIL.—Dr. Post narrated a case as follows: A boy, fifteen years of age, was brought to his clinic last Saturday who had been in the enjoyment of fair health, except that he had suffered from headache during the last two years to a considerable extent. About five days before he was brought to Dr. Post the patient was suddenly attacked with ptosis of one eye, and there was almost absolute loss of vision attending it. There was bare perception of light. There was no strabismus; the pupils of the two eyes corresponded with each other, and both were sensitive to light. The occurrence of ptosis without strabismus, and amaurosis without dilatation or sensitiveness of the pupil, seemed to him to be unusual.

NEW YORK OBSTETRICAL SOCIETY.

A STATED meeting was held November 7, 1882, Dr. C. C. LEE, President, in the chair.

RECURRENT FIBROID TUMOR OF THE ABDOMINAL WALLS.—Dr. H. T. HANKS presented a fibroid tumor, which was the second one that he had removed from the abdominal wall of the same patient within three years, and a third one had been removed by another physician. The first tumor was situated between the internal oblique and the transversalis muscles, on the right side, near Poupart's ligament, while the last one was situated in the transversalis muscle, on the left side, near the umbilicus, and had more of the characteristics of malignant disease. The following was the report of the microscopical examination made by Dr. W. H. Welch:

The specimen was hardened in absolute alcohol, and showed, on microscopical examination, the following condition: A dense fibrous base, supporting numbers of spindle cells in spots, and groups of round cells were seen. There were places where the prominence of the spindle cells suggested sarcoma. The tumor, both from its clinical history and from its essential structure, may be classified among so-called recurrent fibroids.

The PRESIDENT remarked that a recurrence of fibroid tumors in muscular tissue was very exceptional, this being the only case of the kind which he had seen.

ACRANIAL MONSTER.—Dr. W. M. CHAMBERLAIN presented the specimen, and subsequently wrote out the history. [See p. 93.]

VESICAL CALCULUS WITH A HAIR-PIN NUCLEUS.—The specimen was presented by Dr. W. R. GILLETTE, who had removed it from a German girl nineteen years of age, at St. Francis's Hospital. Her symptoms were emaciation and incontinence of urine. The stone, with the hair-pin nucleus, was removed through the vesico-vaginal septum. The patient professed to have no knowledge of how the hair-pin had entered the bladder. Dr. Gillette also presented another specimen, with a similar history, which was removed from a patient at Charity Hospital some years ago. — Dr. GARRIGUES and Dr. HANKS each mentioned a similar case.

The PRESIDENT had seen a calculus, removed from a man at Bellevue Hospital some years ago, by Dr. Van Buren, which had for a nucleus a head of wheat that the patient had introduced partially into the urethra and was afterward unable to extract. Some years ago he presented to the Pathological Society two specimens of stone in the female bladder, which had for a nucleus the handle of a spoon. One he had removed himself; the other was removed by another surgeon.

Dr. B. F. DAWSON remarked that in the Army Museum at Washington there were pieces of brick which had been removed from the bladder of a negress.

PROBABLE TUBAL PREGNANCY.—Dr. HANKS had been called in consultation by Dr. Bradshaw to see a multipara who should have menstruated on the 16th of October, and who very soon afterward felt pain in the region of the left ovary. When he saw her, which was about the 1st of November, she was losing considerable blood. He ordered ergot and opium, and directed the vagina to be tamponed. Afterward, on removing the tampon, a very small ovum, with the membranes, was discovered in the blood which had been discharged. The depth of the uterus in the direction of the right ovary was about three inches, while in the direction of the left ovary the depth was four and a half inches, which would seem to indicate tubal pregnancy on the left side.

The PRESIDENT remarked that this case suggested a point of practical importance. He had recently been called in consultation to see a multipara who had aborted at about the second month, and it was supposed that a part of the placenta remained in the uterus. He found, on examination, that the appearance which had led to this supposition was due to a softened and lacerated condition of the cervix, and the presence of exuberant granulations. Doubtless this condition sometimes led the physician to adopt unnecessary and harmful measures for the removal of the placenta in cases of abortion in the early months of pregnancy.

HYSTERECTOMY.—Dr. BACHE McE. EMMET narrated a case as follows: The patient first came to the Woman's Hospital five years ago, suffering from procidentia of the uterus, which was partially relieved by certain plastic operations on the vagina. Last spring Dr. Emmet performed Le Fort's operation, which proved successful; but some months afterward the patient gave way to a fit of anger, and the uterus, which contained a large

fibroid tumor, was again crowded down toward the vulva. The patient was suffering greatly from pain, and desired to have the tumor removed. Dr. Emmet performed the operation on Friday last, removing the body of the uterus with a portion of the cervix, the ovaries, and the tubes. The mass was composed of eight fibroids, mostly intramural. In order to avoid hæmorrhage, Dr. Emmet made use of a plan first introduced, he believed, by Olshausen, but since constantly practiced in England, viz., that of encircling the whole mass at its base by a long piece of Esmarch's tubing prior to its amputation. This tubing, being put about the tumor at full tension, was grasped at the point of crossing of the two extremities by a strong forceps, and this was firmly held by an assistant. Prior to the removal of this constrictor he secured the stump in the Kœberlé serre-nœud, having previously transfixed it with two needles. The abdominal wound was then closed, and the pedicle was thoroughly smeared with Monsel's salt. At the present time, the beginning of the fifth day, the patient was doing well.

Dr. C. CLEVELAND exhibited a saw which he had invented for use in operations on the cervix uteri in cases in which the cicatricial tissue was considerable in amount and difficult to get at with the scissors. — Dr. HUNTER had used the instrument with advantage in two cases. [For a description of the instrument, see the "New York Medical Journal," Jan. 13, 1883, p. 54.]

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Committee on Publication.

A STATED meeting was held November 21, 1882, Dr. CHARLES C. LEE, President, in the chair.

The PATHOLOGIST reported on the specimen presented by Dr. Hanks at the last meeting as follows:

The ovum, in a collapsed condition, measures 3 by 2½ ctm. It is covered all over with chorionic villi. The inside is smooth. At one spot is seen a small, round, flat body, 6 mm. long. It is all covered with a continuation of the inner membrane (amnios), which almost forms a kind of mesentery at its ends. Under the amniotic cover is only found a uniform yellow mass, without any visible organization. Judging by the size, the ovum is at least four weeks old. The small round body is the degenerated foetus.

Dr. H. J. GARRIGUES exhibited a serre-nœud as modified by Cintrac, of Paris. — The PRESIDENT thought the instrument was superior to the so-called improved serre-nœud of Weiss, of London.

HYSTERECTOMY.—Dr. BACHE McE. EMMET reported further on the case which he narrated at the last meeting of the society. The patient at that time was doing well, but suddenly extensive peritonitis developed, from which she died on the sixth day. There had been a good deal of sloughing of the abdominal wall about the stump, which was probably due to the free use of Monsel's salt, which had liquified and run down. The wire, which had been twisted so tightly about the pedicle, was found to be loose, showing that any tendency to hæmorrhage that might have existed had been controlled by the tanning of the pedicle.

EMBEDDED PESSARY.—Dr. PAUL F. MUNDÉ presented a pessary which he had recently cut out of its bed in the vagina, seven years after its insertion.

PUNCTURE OF THE GRAVID UTERUS DURING THE PERFORMANCE OF OVIOTOMY.—The PRESIDENT related the case as follows: The patient was a woman, twenty-eight years of age, who was sent to the Woman's Hospital by Dr. Hanks, for the removal of an ovarian cyst situated on the right side. The presence of the cyst was supposed to have been the cause of several miscar-

riages, and, as the patient was then three months pregnant, it was thought likely to prove so again. After making the usual incision for ovariectomy, the exact relation of the tumor to the uterus was ascertained. In turning the patient on her side, preparatory to puncturing the cyst, the latter was let go, and, unknown to Dr. Lee, the uterus took its place, rolling up into the abdominal incision, and was punctured instead. A large trocar penetrated the body of the womb to a depth of about two inches, entering at a point about two inches below the fundus. No fluid escaped when the trocar was withdrawn. The uterine wound was sewed up with carbolized silk, the long pedicle of the ovarian cyst was then ligated, the cyst was removed, and the abdominal wound was closed. Abortion had not occurred, and the patient was doing well. There had been vomiting, which was probably due to the influence of the anæsthetic. It was a noteworthy fact that the pedicle in this case was so long that the tumor, which was developed from the left ovary, lay upon the opposite side, in the region of the right ovary. The President thought the silk-worm suture which was used to close the abdominal wound possessed no advantages over the carbolized-silk ligature. It was much more liable to break, and was less easy to handle.

HEGAR'S OPERATION.—The PRESIDENT also related the following case: An unmarried woman, aged thirty-six years, was sent to the Woman's Hospital by Dr. Streeter, of Watertown, to have oöphorectomy performed for the relief of symptoms due to a large multilocular fibroid tumor of the uterus. She had been suffering from menorrhagia and dysmenorrhœa for years, and had been unable to obtain relief. The tumor was as large as a foetus at the seventh month, lay principally on the right side of the abdominal cavity, and extended as high up as the umbilicus. The uterus could not have been extirpated without imminent danger to life. After an unsuccessful trial of medicinal treatment for a month, it was decided, at a consultation of the surgeons of the hospital, that Hegar's operation should be performed. The President removed the Fallopian tube on one side and both ovaries. The case was progressing favorably since the operation. The right ovary was bound down by adhesions, and extremely difficult to remove. Where adhesions were not present, however, the operation was not a difficult one. This was the third time it had been resorted to at the Woman's Hospital within a month, twice by Dr. Thomas, and once by himself. The patients were doing well. According to the statistics of the operation as given in the "American Journal of Obstetrics," January, 1880, out of one hundred and twenty cases only twenty-eight deaths had occurred. The success of the operation in relieving menorrhagia and dysmenorrhœa had been so great, and the dangers attending its performance had been so small, that the President thought it should be resorted to in these cases more frequently than had been done in the past.

With regard to the first case, Dr. GARRIGUES, who was present at the operation, said he did not think the trocar could have entered the amniotic cavity, else it would have caused miscarriage.

Dr. P. F. MUNDÉ mentioned several cases in which the gravid uterus had been accidentally punctured during an operation, but, so far as he knew, this case was unique in that the patient recovered without miscarriage.

Dr. C. S. WARD remarked that Dr. Thomas had lately performed Hegar's operation in a third case.

The PRESIDENT referred to Mr. Lawson Tait's experience regarding the difficulty of including the Fallopian tube in the same ligature with the ovary, and the necessity for removing the tubes in order to guard effectually against the occurrence of subsequent menstruation and a return of the symptoms.

CÆSAREAN SECTION.—Dr. H. J. GARRIGUES presented the uterus and its appendages, the pelvic bones, and a fœtus, from a case in which he had recently performed Cæsarean section. He remarked that, besides deformity of the pelvis, there was disease of the lumbar vertebræ, of the lungs, and of the heart, and that the patient was also suffering from several minor ailments. The last three lumbar vertebræ were fused together, and had caused a slight lordosis in this region; the sacrum was narrow, broader behind than in front, curved greatly backward, and also somewhat to the left, while the coccyx was curved somewhat to the right, the two bones presenting a lateral curve resembling in some degree the letter S. The superior surface of the ilium, instead of being concave, was flat anteriorly and convex posteriorly. The posterior superior spinous processes of the ilia were only six centimetres apart, instead of ten; the antero-posterior diameter of the inlet was greater than the lateral; the ilio-pectineal eminences were very prominent. The tuberosities of the ischia were only about one third the normal distance apart, and were very thin. The pubes appeared to be pushed forward and upward, and the curve between the pubic bones was much smaller than normal. In general, the pelvis was of a funnel shape; the plane of the brim was comparatively large, while the outlet was extremely small; and the ellipsis of the inlet was in the opposite direction from the normal. Dr. Garrigues believed that the deformity of the pelvis was secondary to caries of the lumbar vertebræ, and that it could be accounted for on mechanical principles, or by the action of the muscles.

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A REGULAR meeting was held December 5, 1882, Dr. CHARLES C. LEE, President, in the chair.

RETROVERSION PESSARY, WITH AN ELASTIC SUPERIOR BOW.—Dr. T. A. EMMET showed a pessary which consisted of an Albert Smith pessary from which the upper bow had been cut off and replaced by a hollow soft-rubber bow, the ends of which were slipped over the arms left by the removal of the original bow. This soft-rubber bow was somewhat enlarged in its central portion, forming an air-cushion. Dr. Emmet stated that, while the instrument shown did not fully realize his idea, it was sufficient to show what the design was—namely, to furnish a pessary with a spring-like action exerted in an upward direction, combined with a yielding support to the uterus.

VAGINAL HYSTERECTOMY FOR EPITHELIOMA OF THE CERVIX.—Dr. W. C. BURKE, Jr., of Norwalk, Connecticut, who was present by invitation, showed a uterus which he had removed by the vaginal method twenty-four days before. The patient, who was doing well thus far, was thirty-seven years old. She had formerly been under Dr. Burke's care with stenosis of the os externum, accompanied by leucorrhœa and sterility. Mechanical dilatation rendered the cervical canal normal, and the patient ceased her attendance. Last March she again presented herself, for the relief of metrorrhagia, which, on examination, was found to be due to a cauliflower excrescence from the cervix. The cervix was amputated, but recently the disease had been found to have returned in the upper part of the cervix, and it was on this account that the uterus was removed. The organ was freely movable, and there were no evidences of infiltration of the tissues outside the uterus. Dr. Burke gave a minute description of the steps in the operation, and stated that the ovaries might have been removed without difficulty had it been thought advisable to remove them.

Dr. T. A. EMMET referred briefly to a case of his own which

had been related at a former meeting of the society, and expressed his feeling that the final success of such operations was a matter of considerable doubt. It seemed to him questionable, in view of the tendency of the disease to recur, whether the operation was to be recommended.

Dr. H. J. GARRIGUES thought it well to remove the ovaries in cases of hysterectomy wherever practicable, for they were apt to give rise to trouble if left behind, as shown by the formation of a hæmatocele in one of M. Péan's cases.

Dr. BURKE remarked that his patient had passed a menstrual period once since the operation, and without any flow.

Dr. W. M. POLK gave it as his decided impression that the most appropriate field for the operation of removal of the uterus was that of sarcomatous growths, which, while they showed a marked tendency to local recurrence, and in general proved fatal in the end, yet were not disposed to infect neighboring parts. Hence, in such cases removal of the uterus was more likely to get rid of the neoplasm permanently than in cases of carcinoma, besides which, the repeated minor operations rendered necessary in cases of sarcoma were apt to give rise to septicæmia in the end.

Dr. T. A. EMMET concurred in Dr. Polk's views.

DISSECTING METRITIS.—Dr. GARRIGUES presented a specimen of uterine tissue which had been cast off in a case under his observation, and referred to two other cases, one of which had been already reported to the society. The features of interest in the case now reported were, that the patient was not supposed at the time to be seriously ill, and also that the portion of tissue expelled was not in a septic condition at all, but was perfectly sound, like a piece of fresh beef. The specimen was examined microscopically, and found to consist of healthy uterine tissue undergoing the fatty degeneration of involution, the patient having been recently delivered. He again called attention to the great thinning of the wall of the uterus which took place in these cases, and to the danger, therefore, of rupture of the uterus in a subsequent delivery.

REMOVAL OF THE UTERINE APPENDAGES.—Dr. T. A. EMMET showed a number of specimens of dilated Fallopian tubes which had been given him by Mr. Lawson Tait, of Birmingham, England, and referred to Mr. Tait's practice of removing the uterine appendages frequently for the relief of chronic pelvic indurations which had heretofore been regarded as inflammatory thickening of the broad ligament, but which Mr. Tait looked upon as due to dilatation of the Fallopian tubes in all cases in which the usual treatment failed to produce a cure in the course of six months. Dr. Emmet added that Mr. Tait's results had been remarkably successful.

The following were the histories of three of the cases, as given him by Mr. Tait:

CASE I. PYOSALPINX.—Patient, aged twenty-eight years, had been a prostitute, and suffered several times from gonorrhœa. There was intense abdominal and pelvic pain, amounting to agony at times. She could not endure marital intercourse, and could walk only with difficulty. A mass was felt at the right of the uterus. On March 28, 1881, I [Mr. Tait] opened the abdomen to remove the mass, but could not complete the operation on account of adhesions. On February 2, 1882, the case had got so much worse that I made a second attempt and succeeded. The patient made an easy recovery, and left the hospital free from pain.

CASE II. DOUBLE HYDROSALPINX.—The patient had suffered from persistent pain, with a tender mass on each side of the uterus. Menstruation was normal. Walking brought on pain, and intercourse was unendurable. I opened the abdomen and found all the pelvic organs matted together. Removed the uterine appendages. Both Fallopian tubes were adherent, occluded, and distended with serum.

CASE III.—Patient, aged thirty-eight years, gave birth to a child three years before, and had been ill ever since, with several attacks of acute peritonitis, from two of which she escaped with difficulty. The pelvic organs were fixed. Intercourse was unendurable. Two tender masses were felt behind the uterus. I opened the abdomen and found everything matted, the appendages completely adherent, the tubes distended with serum. The operation was very difficult to perform, and was attended with profuse hæmorrhage. The patient, however, made an easy recovery.

FIBROID TUMOR OF THE UTERUS.—Dr. T. A. EMMET also narrated this case, and stated that the point of interest connected with it related to the peculiar development of the tumor, which rendered the operation a very difficult and a fatal one. From the large tumor a spur was developed which fitted so tightly into the pelvic cavity that it seemed impossible to remove it. While attempting to do so, the uterus, with the mass, was torn from its attachments to the vagina and pelvic tissues, and a torrent of blood poured forth from the ruptured vessels. Although the hæmorrhage was finally controlled, the patient died really from the excessive loss of blood. Her condition had been such that, had the operation not been performed, doubtless death would have resulted within a few days, from the natural course of the disease. He mentioned the case simply as another which went to show the liability to the occurrence of unforeseen accidents.

Dr. P. F. MUNDÉ thought it desirable that we should possess some means of diagnosing enlargement of the Fallopian tubes by physical examination, rather than to undertake so serious a procedure as laparotomy on the strength of a mere inference. Was there, he asked, any such means?

Dr. F. P. FOSTER stated that he had diagnosed the condition in one instance from having recognized, on rectal examination, a body of a peculiar shape, resembling that of a fern head, occupying the situation of the Fallopian tube. He noticed that the specimens presented by Dr. Emmet were very much of this shape. In the case to which he referred no operation was performed, but he was as positive about the diagnosis as he could be about anything that was not actually demonstrated.

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Reports on the Progress of Medicine.

QUARTERLY REPORT ON ANATOMY AND PHYSIOLOGY.

No. VIII.

By WILLIAM C. AYRES, M. D.

BRAIN WEIGHT AND BRAIN POWER.—Dr. J. P. H. Boileau is a full believer in the connection of the relative weight of a man's brain and his intellectual development. His article ("Lancet," Sept. 23, 1882) records a case in question, as follows: An officer, who was remarkably brilliant at school and in all of his relations of after-life, died of liver, lung, and brain disease. Post-mortem showed that his brain weighed 26,130 grains avoirdupois, or 59.72 ounces. It had also a specific gravity of 1.049. Thus, the weight of this brain exceeds all others usually quoted except Cuvier's, which weighed 64½ ounces, and Dr. Abercrombie's, 63 ounces. Since the average weight of a male adult's brain is under 50 ounces, and the specific gravity 1.036, the brain

of the officer was far in excess of the average. In fact, the specific gravity of 1.049 is the greatest on record.

THE MINUTE ANATOMY OF THE THYMUS.—In Mr. H. Watney's short note on the minute anatomy of the thymus ("Proc. of the Roy. Soc.," xxxiii, 216) we find that ciliated epithelial cells are found in the thymus of the dog. This is not the case in quite young animals, but ciliated epithelium can always be demonstrated in the thymus of a dog of over thirty months old, and often in those of much younger animals. In the older dogs the ciliated cells are found lining cysts, and the cysts appear to increase in size with the age of the animal. They take origin from connective-tissue corpuscles. These corpuscles, forming the network of the medullary portion, are in places massed together, forming concentric corpuscles of small size; in these masses small cavities are found, and the lining cells are transformed into ciliated cells.

In the thymus of the tortoise small cavities are found lined by columnar epithelium. The epithelial cells arise from connective-tissue corpuscles, the process being essentially the same as that just described in the dog.

The fluid in the lymph vessels leading from the thymus can be obtained by tying the vessels immediately after death. The lymph thus obtained contains considerably more colorless corpuscles than the lymph of the large lymphatics of the neck. The blood in the veins passing from the thymus does not appear to differ from the blood in the jugular vein.

THE INVISIBLE CORPUSCLES OF THE BLOOD.—Dr. R. Norris concludes his article, "On the Invisible Corpuscles of Mammalian and Oviparous Blood, and their Relation to Fibrin Formation and Coagulation" ("Lancet," Sept. 16, 23, 1882), by observing that the corpuscles recently observed in the circulating blood of the lower mammals by Professor Bizzozero, and called by him "blood-plates," are not newly discovered bodies, having been previously described by Professor Gulliver in 1846, and later, in 1872, by Professor Hughes Bennett, and more fully by himself in 1878, under the designation of "lymph discs." He says that this corpuscle possesses its fibrin-forming powers by virtue of being one of a series of corpuscles which he has distinguished as the "fugitive group," some of which are visible and others invisible in the blood. Of this series of corpuscles it is the earliest, and the one which yields the smallest amount of true fibrin, contributing more to the substance of the clot by furnishing granules, which adhere to the true fibrin and assist mechanically in the production of fibers, than in any other way. The true fibrin is not deposited, as is usually stated, from the liquid of the blood, but is the viscous, slimy, glairy, transparent material furnished by the fusion and coalescence of the more developed corpuscles of the group—viz., by the invisible, colorless, and barely visible, slightly colored discs, which, after the blood is shed, undergo conversion into the well-known fibrin forms.

2. The elliptical corpuscles of the ovipara, like the discs of the mammals, are divisible into a permanent and fugitive group. The latter includes those ellipsoidal corpuscles the nuclei alone of which can be seen, and the cell-bodies of which are invisible, both while the blood is circulating and after it has been shed, and also a few of those corpuscles the outlines of which have become visible by the delicate tinting of the cell-bodies with hæmoglobin. It is the cell-bodies of these corpuscles which furnish the true fibrin—i. e., the material gelatinizes when the blood is shed. As in the case of the mammal blood, these corpuscles are the product of a gradual development of a colorless element, which can be traced back as far as the spleen lymphatics and the bone-marrow, and which is the true analogue of the primary lymph disc, from which all the morphological elements of mammal blood are directly or indirectly derived. This parent color-

less element of oviparous blood, therefore, corresponds to the so-called blood-plates of Bizzozero.

3. In his recent investigation, Professor Legge, having overlooked the invisible cell-body of the transparent colorless ellipsoid of the ovipara, has seen its nucleus both in the circulating blood and in the blood removed from the vessels, and has described it as an independent body, and the analogue of the plates of Bizzozero, never dreaming that there existed around, and inclosing it, an unseen cell-body as large in most cases as that of the full-grown red corpuscle. No stronger proof could be afforded of the truth of his views, says Dr. Norris, than such an oversight, or of the incorrectness of Professor Legge's statements that no objection can be made to his conclusions, "on the ground of excessive delicacy, because when we are forewarned it is possible to observe a detail, however delicate." Professor Legge, he adds, has unwittingly demonstrated the truth of the position as to the absolute invisibility of these corpuscles under the conditions in which they normally exist.

4. With the well-known fact that water or aqueous solutions will remove the hæmoglobin from the red corpuscles, and render them so pale as to be scarcely visible, he has nothing whatever to do. These conditions are never present in any of his experiments, in addition to which there exist unmistakable characteristic differences, which enable the technically educated to distinguish at once between decolorized corpuscles and such as have never possessed hæmoglobin.

5. Although the invisible disc of the mammal has not yet been detected in the circulating blood, its equivalent and analogue in the lower vertebrata is, under these conditions, readily demonstrated; for, notwithstanding that its cell-body is as invisible as the mammal disc, its nucleus is distinctly visible, and forms the means of its identification both within and outside the vessels; and the problem to us is precisely the reverse of one of decolorization, for we have to bring into view—around a body which, in the circulation and outside it, presents itself and has been described as a free, colorless element—a cell-body having the size and form of cell-bodies of the ordinary red corpuscles, but devoid of hæmoglobin. Of the existence of the invisible corpuscles of oviparous blood we have, therefore, the crucial evidence furnished by its detection in the circulation.

THE STRUCTURE OF THE HEPATIC CELLS.—In his article styled a "preliminary account of the structure of the cells of the liver, and the changes which take place in them under various conditions" ("Proc. of the Roy. Soc.," xxxiv, 220), Mr. J. N. Langley states that he has examined the liver-cells of a variety of animals, and they show the following common points of structure:

The protoplasm is arranged in the form of a network or honeycomb, the meshes or spaces of which are, in all parts of the cell, of much the same size; the outer parts of the cell are formed of a thin layer of slightly modified protoplasm, with which, however, the network is continuous. The spaces of the protoplasmic network are occupied by paraplast or interfibrillar substance consisting of (1) spherical granules, probably proteid in nature; (2) spherical globules of fat; (3) hyaline substance, filling up the spaces not occupied by the granules or globules. This substance consists partly of glycogen, and in part, probably, of a proteid.

As will be seen, this varies in many important particulars from the descriptions of Klein, Kupffer, Hering, etc.

When a section of the liver containing glycogen, after having been hardened in alcohol or osmic acid, is placed for some minutes in iodine solutions, certain parts of the interfibrillar substance of the liver-cells stain red-brown. Langley concludes that the portions so stained are glycogen, since glycogen can be extracted from them, since the amount of the red-staining sub-

stance varies directly with the amount of glycogen which can be extracted, since the coloration is just that produced when iodine is added to a little purified glycogen on a glass slide, and since it is rapidly dissolved by an amylolytic ferment, such as an aqueous or glycerin extract of the parotid of the rabbit.

During the summer months the liver of a hungry frog has granules scattered equally throughout the cell, and there is very little glycogen. During the long winter fast the cells change in appearance, the granules become more and more confined in the inner part of the cell, and form there a marked inner granular zone. The glycogen increases in amount, and is stored up chiefly in the outer part of the cell, where there are no granules. Osmic acid specimens in this condition show two distinct zones—an inner granular one, and an outer, apparently homogeneous one; the nucleus lies at the border of the two, or, if the outer zone is large, lies in it alone. When such a cell is treated with iodine, all, or nearly all, of the outer zone stains red-brown; around the granules also a varying amount of red-brown stained substance is found; the network of the inner zone, the granules, and the nucleus stain yellow. In these specimens the network of the outer part of the cell can not at all, or only very imperfectly, be made out. It is, however, seen in sections of the gland which have been hardened in chromic acid. It is continuous with the network of the inner part of the cell, but has wider spaces, and its bars are finer.

The disappearance of granules and the formation of glycogen which takes place in winter is only partly brought about by the absence of food; it is brought about in part, perhaps chiefly, by the low temperature, since, if in winter, when the granules are few and the glycogen plenty, the frog be kept at 20° C. for a week or a fortnight, the cells become granular throughout, and the glycogen largely disappears. If in summer the frog is kept cold, the reverse takes place.

Although, generally speaking, a decrease of the granules goes hand-in-hand with an increase of glycogen, yet a certain amount of variation in the one may take place without any variation in the other. Langley, therefore, considers the formation of both as independent processes. He thinks (from reasons stated) that the granules of the liver-cells are destined to give rise to some constituents of the bile.

As to the fat in the liver-cells, he says that, since in winter the amount of fat in the liver varies so much in frogs apparently alike, he does not feel justified in drawing any conclusions as to the changes occurring in digestion.

He mentions a peculiar fact, that the cells of a frog's bile-duct, where it runs through the pancreas, are ciliated; the pancreatic duct with non-ciliated cells joins it close to the small intestine.

He has taken the mole to observe the changes in the liver during digestion. In the hungry animal the protoplasmic network stretches throughout the cells with nearly equally sized meshes; in the spaces of the network is a small amount of hyaline substance, partly glycogen, and embedded in this are rather large granules. When the liver is examined, six to eight hours after digestion, there is a greater or less disappearance of granules from the center of the cells around the nucleus; the network has much wider spaces and thinner bars, and the spaces are for the most part filled with glycogen. In cases where changes are most marked, osmic-acid specimens treated with iodine show a diffuse reddish-stained mass surrounding the nucleus; at the borders of the cell the yellow-stained network is seen, and one or two rows of granules; between these a little red-stained substance may usually be traced, continuous with the central mass of glycogen. The peripheric network and granules make the cell appear at first sight as if it had a very thick cell-wall. The network in the central part of the cell is

brought out by hardening a piece of liver in chromic acid and other reagents. In cells in which the digestive changes are less advanced, the glycogen may only partially surround the nucleus, or may be accumulated more on one side of it than elsewhere.

As in the liver of the frog, so in the mammalian liver, he takes the granules to be concerned in the formation of some of the substances found in the bile.

THE FUNCTION OF SECRETION.—In his lecture on the growth of our knowledge of the function of secretion ("Lancet," Aug. 26, Sept. 2, 1882), Mr. A. Gamgee, after paying tribute to the late lamented Darwin and Balfour, and giving especially the principal investigations of the latter, goes into the subject of his address by starting with the ideas of the ancients, and ending with the latest investigations on this most important subject, somewhat as follows: It was known to the ancients that there were organs which were concerned in the separation from the body of excrementitious substances, although the greatest doubt existed as to the organs to which such functions were to be ascribed. Thus, we find Hippocrates defining it as a characteristic of glands that they occur in moist parts of the body, but showing his ignorance of the true relation of glands to secretion by connecting them with the formation of hairs. The general opinion of the ancients, and, indeed, that which was taught by Galen, was that the glands were sieves, or colanders (cola), which served to drain off from the blood purely excrementitious substances. The liver and the kidneys were strangely enough removed from the group of the glands and placed among the viscera. The first author who really treated of the glands was Wharton, in his "*Adenographia sive glandularum totius corporis descriptio*." Although the author certainly added to the descriptive anatomy of secreting organs, his views on the functions of the glands were strangely fanciful and erroneous.

The glands he considered to be specially related to the nervous system, the viscera to the blood-vessels; such glands as the pancreas, and salivary and lachrymal glands being engaged in separating excrementitious substances from the nervous system. Gamgee then gives the researches of Malpighi and Ruysch and their followers.

It was, however, left for Professor E. H. Weber, of Leipsic, to completely demolish the Ruyschian hypothesis. By numerous researches on the salivary glands of birds and of mammals, and on the pancreas of birds, he established the general fact of the termination of gland ducts in blind extremities, though with modesty he put forward his opinions as confirming the inductions of Malpighi, expressing himself as follows: Admirably did Malpighi avail himself of the structure of the liver in the lower animals, and the embryo of the higher, as a stepping-stone to his opinions; for the arrangement of the whole glandular system speaks for itself, inasmuch as it simply consists of single, compact, hollow, blind canals, more or less numerous, floating in a fluid which surrounds their organs; and, although these ramifications are drawn out between the branches of the blood-vessels, there is no immediate passage from one to the other.

As the great Johannes Müller was the first to duly appreciate the fact that all glands possessed of a duct were only involutions, more or less complex, of membranes, the largest number being involutions of the external investment of the body or of the membranes opening into its surface, he gives the result of his study relative to the structure of glands deduced from the anatomical study of individual organs. (Here follow the results of Müller's investigations under twelve heads.) Müller it was who first pointed out that "the peculiarity of secretions does not depend on the internal conformation of the glands," for, says he, "as I have sufficiently demonstrated, each secretion is in different animals the product of the most various glandular structures,

and very different fluids are secreted by glands of similar organization. The nature of the secretion depends, therefore, solely on the peculiar vital properties of the organic substance which forms the secreting canals, and which may remain the same, however different the conformation of the secreting cavities may be, while it may vary extremely, although the forms of the canal or ducts remain the same."

Purkinje announced the hypothesis that the nucleated epithelium which he discovered to line the gland ducts might exercise the secreting functions. Henle described, with great minuteness, the epithelium cells which line the surface of the ducts of the principal glands which form the superficial structures of mucous membranes, and Schwann suggested that this epithelium probably played a part in the act of secretion. It was, however, unquestionably the Scottish anatomist, John Goodsir, who established, in an indisputable manner, the fact that the essential and ultimate secreting structures in glands are the morphological units, the gland-cells. Goodsir was decidedly wrong in his further ideas as to the part of the cell which performed the secreting act, since in one publication he maintained that it was the cell-wall, in another the cell-nucleus, while to-day we consider that this action is the result of the activity of the living protoplasm of the cell.

Gamgee then gives the modern history of our knowledge concerning this most interesting branch of physiology, and concludes by a summary as follows: "The complicated studies of which I have attempted to give a brief sketch have led to our forming a certain, clear, general conception in reference to the process of secretion. They have brought into greater prominence the dignity, if I may use the expression, of the individual cell. The process of secretion appears as the result of the combined work of a large number of units. Each, after the manner of an independent organism, uses oxygen, forms CO_2 , evolves heat, and derives its nutriment from the medium in which it lives, and performs chemical operations of which the results only are imperfectly known to us. So long as the protoplasm is living, the gland-cell retains its power of discharging its functions, and in many cases does so as long as the intercellular liquid furnishes it with the materials required. In some cases, however, the gland-cells are specially sensitive to a variation in the composition of the nutrient liquid, certain constituents of which appear to stimulate the protoplasm to increased activity. In the higher animals the cells, particularly in certain glands, are in relation to nerves which, when stimulated, affect in a remarkable manner the transformations of their protoplasm, leading to an increased consumption of oxygen, an increased production of carbonic acid, an increased evolution of heat, and an increased production of those matters which the cell eliminates and which constitute the secretion."

THE MOTOR FUNCTIONS OF THE BRAIN.—Rosenthal ("Med. Jahrb.," 1882, iii) gives a general review of what we know on the subject, culled from the writings of the various authors. He criticises them to some extent, and thus relates his own experience, gained both from experiment and clinical observation. The results of his experience go to show that an irritative lesion of the pyramid fibers and the cells connected by sudden and very vehement hæmorrhage in the various parts, cortex, centrum ovale, inner capsule, can produce tonic muscular spasms. This can happen without rupture. The greater lesions which cause rupture toward the convexity or toward the ventricle will produce a more rapid and lasting rigidity. The hæmorrhage into the lateral ventricle, which is produced by less pressure, may not affect the pyramidal fibers of the capsule interna; in this case there will be present the usual increase of intracranial pressure and apoplectic symptoms, but there will be no convulsion or muscular rigidity.

He shows, further, that the irritative lesion of the above parts, and not the consequences, produces the muscular rigidity. This is demonstrated by the following experiment: In a medium-sized dog the cord is cut high up in the pectoral portion, and artificial respiration set up; the hind paws of the animal will appear paralyzed, while those in front will undergo tonic spasms. Every mechanical or electric irritation of the muscle or nerves will cause increase in the spasms.

Many clinical, anatomical, and experimental facts tend to prove that the doctrine which we have heretofore held as to the motor significance of the corpora striata system is not beyond question; they seem to show that the motor centers are located in the capsula interna. He says he would not state that the corpora striata have no relation to mobility, since, in the sense of Magendie, they may govern the co-ordination of motions. According to Duret, animals which have had their corpus striatum divided lose the power of progressive motion; but more extended and careful study of this in man must be sought after. The opinions of Charcot on this subject he cites from a lecture from that author in the following manner: "*Je suis tout disposé à croire comme vous, que la lésion des corps opto-striés ne produit l'hémiplégie qu'en tant, que cette lésion intéresse directement ou par compression le faisceau pyramidal de la capsule interne. Il y a longtemps, que je ne me suis plus occupé de la question. Je la reprendrai à la première occasion, puisqu'elle vous intéresse.*"

THE PROPAGATION OF INHIBITORY EXCITATION IN THE MEDULLA OBLONGATA.—Mr. Kronecker and Mr. Meltzer ("Proc. of the Roy. Soc.," xxxiii, 216) arrive at the following conclusions:

1. That the beginning of every act of swallowing not only excites the œsophageal contraction related to it, but at the same time restrains the contraction excited shortly before it, but which has not yet occurred. This inhibition is capable of preventing the contraction even immediately prior to its appearance. It is, therefore, to be concluded that the restraining excitation traversing the direct motor tracts outruns the motor excitation advancing through the ganglion groups.

2. The second motor irritation is effective only when the contraction following the first has passed. The anatomical tracts, along which this inhibition is conducted, they have found to be the ramifications of the ninth pair of cranial nerves (glossopharyngeal).

3. If the trunk of the glossopharyngeal is irritated, no movement of deglutition results, in spite of the strongest excitation to deglutition, produced by filling of the pharynx with fluid, or by stimulation of the superior laryngeal nerves. Both the first reflex act of swallowing and the œsophageal contraction are for the time in abeyance.

4. If the pharyngeal branches only are irritated, then the inhibitory phenomenon appears in the cervical or in the thoracic portion of the œsophagus.

5. If the glossopharyngeal nerve be cut through, the œsophagus falls into tonic spasm, which may last longer than one day.

They further conclude that the excitations which reach their center in the medulla oblongata through the glossopharyngeal nerve exert an inhibitory influence, not only in the origins of those vagus fibers which supply the œsophagus, but also on the ends of the vagus fibers which *excite* the movements of respiration and *restrain* those of the heart. Lastly, the inhibitory influences extend also to the center in the medulla, regulating the blood-vessels. This can be shown in normal living man. One can, by swallowing easily, observe the following: 1. During each act of swallowing the pulse frequency increases. 2. During a series of acts the need of respiration decreases. 3. During each act of swallowing the blood pressure falls in the aortic

system. This remarkable proposition therefore follows: that the excitations which are conveyed to the center, along the tracts of the inhibitory nerves, extend in the character of inhibitions to the neighboring centers.

Continued experiments on these inhibitory nerves promise specially interesting disclosures, because they can be set into activity through normal excitation voluntarily produced, which is not the case with the vagus.

THE WHITE CORPUSCLES AND THE COAGULATION OF THE BLOOD.—Dr. L. C. Wooldridge ("Proc. of the Roy. Soc.," xxxii, 214) gives many interesting conclusions regarding the relation of the white corpuscles to the coagulation of the blood. The leucocytes (essentially white blood corpuscles) were obtained by finely dividing the mesenteric glands of a calf and gently rubbing the fragments in a mortar with a one-half-per-cent. solution of salt. By filtration through a fine cloth the cells passed through, and were washed out with a one-half-per-cent. solution of Na Cl by means of the centrifugal machine. The cells were apparently unchanged under the microscope. They were then suspended in a little normal salt solution and subjected to various experiments, the most important of which showed that the lymph cells are changed by simple chemical reagents into a substance closely resembling fibrin. If to one volume of suspended cells an equal volume of ten-per-cent. solution of common salt be added, the whole is immediately converted into a peculiar semi-transparent jelly. If this be poured into water, or into a one-per-cent. solution of salt, it becomes immediately opaque. The microscope shows that the cells as such have disappeared. Only nuclei embedded in a distinctly fibrous ground substance are visible. The same for sulphate of magnesium, distilled water, etc.

To show the behavior of leucocytes toward plasma, he collects the plasma of a dog by injecting peptone. This he calls peptone plasma. After experiments he concludes that peptone plasma behaves in the same way toward the cells as salt, magnesium, or water. When peptone plasma is the destroying reagent, the result is certainly fibrin, and the action is perfectly independent of the presence of a fibrinogenic substance in the plasma, since there could be no such substance found in it. He concludes that the plasma changes the cells into fibrin, for various reasons which he gives in full. He also shows that coagulation is the result of a change in the plasma, and has nothing to do with the vital properties of the cells; also, that the conversion of the white cells into fibrin is quite independent of the presence of any "fibrinogen" substance. Fibrinogen is present in "living" plasma, yet the dead cells produce no coagulation. Fibrinogen was absent from the peptone plasma, which still gave practically unlimited quantities of fibrin with lymph-cells. Alexander Schmidt has shown that white blood-cells do unquestionably disappear as such during normal coagulation of the blood, and Wooldridge confirms his statement. He therefore thinks that he is justified in saying that there are two essential processes in the coagulation of the blood, one of which has been hitherto entirely wrongly appreciated or overlooked. This is that the "dead" plasma converts the white corpuscles directly into fibrin. At the same time, however, that this occurs, a substance is liberated from the cells which converts the fibrinogen into fibrin. The substance which is liberated from the cells is fibrin ferment.

THE ACTION OF THE AURICLES OF THE HEART.—Dr. G. A. Gibson's paper ("Edinburgh Med. Jour.," Aug., 1882) is mainly historical, but is interesting, since it gives about all we know concerning the action of the auricles in health and disease. For instance, he refers to the fact that the contemporaries of Senac and Haller (1749-'57) well appreciated the action of the *venæ cavæ* and *pulmonales*; it was a matter of every-day

observation that the superior vena cava continued to pulsate after the auricles and ventricles had become motionless. During the closing years of the last century and the first half of our own no such property was allowed to veins; as a matter of fact, in the memoirs of Raciborski, the statements of Haller are categorically denied, and attributed to mistakes in observation.

The discovery by Wharton Jones of the rhythmic pulsation of the veins of the bat's wings was of much importance, for it turned the attention of physiologists to the well-nigh forgotten fact that the venous walls have the power of independent contractions in situations requiring such aid. Now, by the observations of Colin, and of Lauder Brunton and Fayer, the subject may be regarded as beyond discussion. As before mentioned, the paper is mainly historical, and, since it is illustrated by numerous heart curves on wood, it would be well worth the reading.

THE DURATION OF THE VENTRICULAR SYSTOLE.—The heart tracings which are recorded in Dr. P. M. Chapman's paper ("Brit. Med. Jour.," Aug. 19, 1882) were obtained by Dr. Burdon Sanderson's cardiograph, and, since the instrument is a delicate one, the results seem to be reliable. The measurements of the duration of the systole for the different pulse frequencies are made from the same cases at rest, and also when the pulse frequency varies from excitement, from exertion, and from immersion in the hot-air chamber of a Turkish bath. Many tracings follow. It is interesting to note in the tracing the very rapid diminution in the duration of systole. In the Turkish bath the temperature was 140°. The temperature of the body never rose above 102° Fahr. After the cold douche it is remarkable that the heart's rapidity returns to the same number of beats as before the bath, and that, as reaction sets in, there is again a diminution in the duration of systole.

He then gives tracings which show that, although the pulse frequency may actually increase, the systole lengthens as the patient cools; also experiments which seem to determine that the temperature of the blood has a distinct influence in shortening the duration of ventricular systole. This shortening was unaccompanied with any feeling of faintness whatever in the patients experimented on. His experiments also furnish the heart tracings of persons who were brought from the bath in a fainting condition and examined while unconscious.

He includes in his report the lengths of systole in pulse rates varying from 130 beats to 46 beats. The length of ventricular systole in the former he gives as 0.2100", while in the latter it is 0.3600". Occasionally, however, a variation in the duration of systole of 0.04" to 0.06" may be met with for the same pulse frequency without any assignable cause; he therefore invites further investigations to clear up the mystery.

Experiments of this nature require much labor and care, and the thirty-one wood-cuts showing his results are certainly worthy of a close study.

THE RHYTHM OF THE FROG'S HEART AND THE ACTION OF THE VAGUS NERVE.—The method employed by Mr. W. H. Gaskell in his study on "The Rhythm of the Heart of the Frog and the Nature of the Actions of the Vagus Nerve" ("Proc. of the Roy. Soc.," xxxiii, 217) deserves to be stated. It is: The heart, with the vagus nerve intact, having been removed from the body together with a portion of the œsophagus, a thread is tied to the very apex of the ventricle, and another to the loose flap, which is disclosed at the junction of the two auricles when the two aortic trunks are cut away. The piece of the œsophagus removed with the heart is held firmly in a suitable holder, and the heart suspended between two horizontal levers by means of two threads, which are attached to the auricle and ventricle. Between the two levers a clamp is placed, the edge of which can be approximated to any degree by means of a fine micrometer

screw; the two limbs of this clamp are placed one on each side of the suspended heart, and, by means of the micrometer screw, the tissue between the two edges can be simply held firm or compressed to any required extent. In this way, with the clamp in the auriculo-ventricular groove, the beats of both auricles and ventricle are registered simultaneously and separately; the contractions of the auricles pull the upper lever downward, those of the ventricle the lower lever upward. Similarly, by varying the position of the clamp, the contractions of the two adjacent portions of the heart can be studied, etc.; heat, cold, and poisons can be applied to the tissue on the one side of the clamp, and not on the other; and under all these various conditions the effects of stimulation of the vagus can be observed. The paper is divided into two parts: I. On the rhythm of the heart. II. On the action of the vagus nerve. Conclusions arrived at in the first part are: 1. The rhythm of the heart is caused by discrete motor impulses passing to the muscular tissue from certain motor ganglia. 2. In order that each one of these impulses may produce a contraction of the ventricle, a due relation must exist between the strength of the impulse and the excitability of the ventricular muscle. 3. When each impulse is inefficient to cause a contraction of the ventricle, the ventricular muscle has the power of summing up the effects of two or more of these inefficient impulses, and so continues to beat rhythmically, but no longer synchronously with every impulse. 4. The most satisfactory explanation of this summation process is as follows: Every impulse which is inefficient to produce a muscular contraction increases the excitability of the muscle, and, therefore, makes it easier for a second similar impulse to cause a contraction. 5. The impulses can be made inefficient to produce contractions synchronous with them by lowering sufficiently the excitability of the ventricle, as is seen in the action of poisons, even although the rate and strength of the impulses remain unaltered. 6. The impulses can also be made inefficient, when the excitability of the muscle is unchanged, by diminishing the strength of the impulses, as is seen in the effects of compressing the tissue between the ventricle and the motor ganglia, or of heating the auricles and sinus without heating the ventricle. 7. There is a limit to the extent to which a series of inefficient impulses can raise the excitability of the muscle, so that the ventricle can remain absolutely quiescent, even although the impulses still pass to it, when those impulses are sufficiently weakened.

In Part II the action of the vagus nerve is considered, and it is shown that its stimulation produces a most marked effect upon the force of the contractions, both of the auricles and ventricle, entirely independent of any alteration of rhythm. The curves obtained can be classified under the three following types:

1. Complete quiescence of both ventricle and auricles, followed by contractions which at first are scarcely visible, but which rapidly increase in size until, at the maximum, they are much greater than before the stimulation of the nerve. From this maximum they very gradually decrease until the original size of contraction is again reached.

2. During the stimulation no quiescence of either ventricle or auricles, but simply a diminution of the size of the contractions, followed by a rapid and marked augmentation of the contractions beyond the original height, and then a slow, gradual diminution to the size obtaining before the nerve was stimulated.

3. No primary diminution, but from the commencement of the stimulation the beats increase in size, and after a time gradually return again to the normal size. Between these three types every conceivable variation may occur, so that a series of curves may be selected in which no line of demarcation can be drawn between complete primary quiescence (or inhibition) on

the one hand, and a simple primary augmentation of the size of the contractions on the other.

The curves alone show that the vagus is able to cause a standstill by diminishing the force of the contractions down to quiescence; this is further shown by the fact that standstill of the ventricle alone can occur while the auricles are beating with accelerated or unaltered rhythm but diminished force, or even when from the commencement of the stimulation the force of the auricular contractions is increased.

The conclusion is drawn that the variations in the effects produced by stimulation of the vagus on the force of the contractions are dependent essentially upon the condition of nutrition of the heart; and possibly for the same cause the vagus tends to lose all power of producing slowing after the heart has been suspended in the apparatus, for in most cases acceleration only is seen, although slowing occurred on stimulation before the heart was cut out, and, apparently, slowing is more likely to occur immediately after the suspension of the heart than later. Further, he concludes, from experiments, that stimulation of the vagus acts upon the muscular tissue of the ventricle in such a way as to diminish its excitability and lower its tonicacy when it reduces the force of the ventricular contractions, while it increases its excitability, and possibly also increases its tonicacy when it augments the contraction force.

Finally, it is shown that atropine removes the whole action of the vagus stimulation, and the effects of the local application of curare, muscarine, and atropine are described and discussed. In conclusion, the author suggests that a series of formative processes is going on in both the muscular tissue and the motor ganglia of the heart similar to those which occur in gland-cells, and that the vagus produces all its effects by increasing the activity of these processes, and not because it contains a multiplicity of fibers, each of which possesses a different function.

THE ACTION OF ELECTRICITY ON THE FROG'S HEART.—From the results of the recorded experiments conducted on the frog's heart in its normal position and still exercising its circulatory functions, Brunton and Cash ("Proc. of the Roy. Soc.," xxxii, 214) have found:

1. That electrical stimulation by a single induced shock has either an obvious effect on the contraction and rhythm of the organ, or no such effect is apparent.

2. That the effect is modified by (a) the time of the cardiac cycle in which stimulation falls; (b) the strength of the stimulation applied; (c) the area of the heart to which stimulation is applied; (d) the action of heat, cold, and drugs. Thus, cold prolongs the systole, the refractory period, and the latency of an induced contraction; while strychnine, leaving the curve of the systole unaltered, lengthens the refractory period to a marked degree.

THE PERIPHERAL LYMPHATICS.—In a lecture before the French Academy ("Gaz. hebdom. de méd. et de chir.," Sept. 15, 1882) Onimus discusses the importance of the peripheric-lymphatic system in the changes of color of the skin. These lymph spaces contain a translucent, pale-yellow fluid, which sometimes gives a light opalescent coloration. It has a great influence on the color of the skin, since, if this lymph is abundant, the red color of the blood will thereby be subdued and the skin will appear pale. If it is present in small quantities, the red will predominate and the skin will appear flushed; therefore, both the peripheric-lymphatic and blood-vessel systems are important in this coloration. We sometimes notice that after moderate mechanical excitations the color of the skin will remain constant for some hours, and be vigorously confined to one place. This is caused by the lymphatic system, since when the blood is expelled from a part of its vessels it returns into

them in a very short time, while this is not the case with the contents of the lymphatic system. In such cases, when the lymph vessels are depleted the skin will appear red; when they begin to be refilled, it has a rosy hue.

If the mechanical excitation has been violent, the changes which occur in the cutaneous coloration are more complicated, because under these conditions the blood returns with too much force, and the parts of the blood column along the walls of the vessels are taken up by blood which has an abnormal quantity of the red-blood corpuscles. Under such circumstances the skin has a vivid red color, since the lymph is absent at the same time.

In many persons, and especially women and children or those essentially lymphatic, we may notice around the place of mechanical excitation that small whitish places commence to form, which increase by degrees, finally forming a surface of a rosy hue. This is caused by accumulations of the returning lymph. If such places are pricked with a needle, they emit a yellowish serous drop, which will be found to be lymph.

Again, in faradization of the skin we notice a very marked rubefaction. We know, however, that this produces a diminution in the caliber of the blood-vessels, and we are therefore at a loss to explain the red coloration except by considering it due to the absence of the lymph.

After the constant current, we notice that the redness is more rapid and more uniform at the positive pole, whereas at the negative pole there is frequently a central, elevated pale spot, which appears as if it contained a milky fluid. The various conditions which regulate the amount of blood in its vessels, such as muscular walls and the "vis a tergo," are entirely different from those which regulate the flow of lymph, which accounts for the above-mentioned differences in the refilling of the lymphatic and sanguineous systems.

The changes in the coloration of the skin in the various diseases are, therefore, probably due to the conditions of both of these systems. Accordingly, all such medications as frictions, electrizations, and baths should be used and studied for the influence they have on the peripheric-lymphatic system. They owe their effect in this way to the above conditions, and, therefore, have much more influence in persons of lymphatic temperaments.

THE PHYSIOLOGY OF SUGAR IN THE SYSTEM.—In his article on "A New Line of Research bearing on the Physiology of Sugar in the Animal System" ("Proc. of the Roy. Soc.," xxxii, 214), Dr. F. W. Pavy concludes that bernardin (glycogen) does not undergo any significant transformation into sugar in contact with blood. Bernardin exists to a distinctly notable extent as a normal constituent of blood. The evidence derivable from the observations recorded on the addition of bernardin to the blood and its subsequent recovery, and on its extraction from the liver by boiling water on successive days, and by water at 300° Fahr., tends to show that bernardin enters into feeble combination with nitrogenous matter. Bernardin exists in notable amount, not only in muscle, as has been previously known, but also in the spleen, pancreas, kidney, and brain. (He has only examined these structures.) It also exists in notable amount in the white and yolk of eggs. These several products likewise contain a cupric-oxide reducing substance, which is extracted by alcohol, and which, in most instances, possesses the character of glucose, but specially, in the case of muscle, the character of maltose. Through the existence of glycogen throughout the system, as has been represented, we have a carbo-hydrate occupying a parallel position to albumin—viz., existing in a colloid state, and thus adapted to retention in the body, instead of passing off as a diffusible substance, as glucose tends to do.

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New Inventions, etc.

CARBOLIZED SOAP-SHEETS.

THE New York agent of Messrs. Reithoffer & Neffe, of Vienna, has favored us with a specimen of Buczkowski's patented carbolized soap-sheets. They are arranged in the form of a little book, easily carried in the waistcoat-pocket. The leaves consist of very thin paper coated on both sides with a thick layer of carbolized soap. We have kept the specimen about two months, and are unable to perceive that during that time the percentage of carbolic acid has diminished notably, although the book has remained open in a warm room. We therefore regard the enduring properties of the sheets, as regards their disinfectant action, as all that could reasonably be expected. We understand, however, that the makers prepare like books with the leaves impregnated with other medicinal substances, also those that are not medicated, but simply perfumed.

The method of using this device is, to tear a leaf out and rub it in the wet hands. The saponaceous coating dissolves at once, leaving a mere pellet of paper. The convenience to physicians of carrying one of these little books in the pocket, rather than any liquid disinfectant preparation, need scarcely be mentioned. They will doubtless commend themselves also to travelers, since they can thus avoid the conventional cake of soap that has been used by they know not how many persons before them.

Miscellany.

THE MASSACHUSETTS STATE BOARD OF HEALTH.—"The Boston Medical and Surgical Journal" announces the resignation of Dr. Alfred Hosmer from the Board of Health, Lunacy, and Charity, and that of Dr. H. P. Walcott the position of Health Officer of the board. The latter gentleman has been appointed to the seat in the board made vacant by Dr. Hosmer's resignation, and Dr. S. W. Abbott, of Wakefield, succeeds to Dr. Walcott's position.

THE ALBANY COUNTY SOCIETY.—At the last annual meeting of the Medical Society of the County of Albany, as we learn from "The Medical Annals," the following officers were elected: *President*, Dr. John M. Bigelow; *Vice-President*, Dr. B. U. Steenberg; *Secretary*, Dr. Lorenzo Hale; *Treasurer*, Dr. G. L. Ullman; *Censors*, Dr. F. C. Curtis, Dr. J. S. Mosher, Dr. J. U. Haynes, Dr. A. Shiland, and Dr. D. H. Cook.

DEATH OF DR. WILLIAM PIRRIE.—Recent English journals record the death of William Pirrie, M. D., LL. D., Professor of Surgery in the University of Aberdeen, at the age of seventy-five. For many years Dr. Pirrie was one of the leading surgeons of the North of Scotland, and he was well known in this country by his treatise on the "Principles and Practice of Surgery."

A PRIZE ESSAY ON THE PREVENTION OF BLINDNESS.—The fifth International Congress of Hygiene, which will meet at The Hague, Holland, in 1884, will award the prize of two thousand francs (£80 sterling), offered by the London Society for the Prevention of Blindness, to the author of the best essay, written in English, French, German, or Italian, on the causes of blindness and the practical means for preventing it. Besides this prize, the International Society for the Improvement of the Condition of the Blind reserves to itself the right to award a second prize of one thousand francs (£40 sterling), or two prizes of five hundred francs (£20 sterling), each and a silver gilt medal with a diploma, should it see fit, to such of the essays as should, in the opinion of the international jury for the principal prize, be deserving of it; the last-mentioned prizes will be distributed at the centenary festival of the first blind institution founded by Haüy, which will take place in Paris in 1834.

The fourth International Congress of Hygiene, which met at Geneva, in September, 1882, has adopted for this competition the following programme, as prepared by the London Society for the Prevention of Blindness: I. The Study of the Causes of Blindness: *a.* Hereditary causes; diseases of parents, consanguineous intermarriages. *b.* Infantile eye diseases; various inflammations of the eyes. *c.* School period and time of apprenticeship, progressive shortsightedness, etc. *d.* General diseases; diatheses, various fevers; chronic poisoning, etc. *e.* Trade influences; wounds and accidents, etc.; sympathetic ophthalmia. *f.* Social and climacteric influences; contagious ophthalmias; unhealthy habitations; defective lighting, etc. *g.* Neglect of treatment and bad treatment of eye affections. II. The Study of Practical Preventive Means: *a.* Legislative means. *b.* Hygienic and professional means. *c.* Educational means. *d.* Medical and philanthropic means.

The International Jury, elected by the Geneva Congress, for the purpose of judging the essays, consists of: Holland—Dr. Snellen, Professor of Ophthalmology, Utrecht. Germany—Dr. Varrentrapp, Frankfurt; Dr. H. Cohn, Professor of Ophthalmology, Breslau. France—Dr. Fieuzal, Physician to the Hospice des Quinze-Vingts, Paris; Dr. Layet, Professor of Hygiene, Bordeaux. Italy—Dr. Reymond, Professor of Ophthalmology, Turin; Dr. Sormani, Professor of Hygiene, Pavia. England—Mr. Streatfeild, Professor of Ophthalmology, University College, London; Dr. Roth, Honorary Secretary and Treasurer (*pro tem.*) of the Society for the Prevention of Blindness, London. Switzerland—Dr. Dufour, of the Ophthalmic Hospital, Lausanne; Dr. Appia, Geneva; Dr. Haltenhoff, Lecturer on Ophthalmology, Geneva, and Secretary to the Jury. Dr. Appia and Dr. Varrentrapp having resigned, the jury completed its number by electing Dr. Coursserant, Oculist, Paris, and Dr. Berlin, Professor of Ophthalmology, Stuttgart.

Those essays to which prizes have been awarded will become the property of the Society for the Prevention of Blindness, and of the International Society for the Amelioration of the Condition of the Blind, who will be at liberty to publish them in whole or in part in several languages, in order to make them useful in the way they consider best. The manuscripts for competition are to be sent to Dr. Haltenhoff, Geneva, Switzerland, Secretary to the Jury, not later than the 31st of March, 1884. Every manuscript must be distinguished by a motto, which is also to be written on a sealed envelope containing the name, Christian name, titles and address of the author. The envelopes will not be opened until after the award of the jury.

THE "ANNALS OF ANATOMY AND SURGERY."—At the close of the third year of the publication of the "Annals of Anatomy and Surgery" the editors indulge in some reflections as to the reason of its being and the aims of its future. It still remains, they say, the only journal devoted to surgery, and to anatomy as related to surgery, published in the English language. That it should be maintained, there is ample reason in the number and quality of the special workers in this field, in the character of the problems which engross its students, and in the rapid strides toward scientific precision which surgical practice has witnessed within the past two decades.

However it may once have been, a monthly or a quarterly which now attempts to include in its compass the whole of medicine is at once crippled by the size of the field, but, if it restricts itself to a special department, it presents the happiest union of the elements needed for the best presentation of whatever may be of permanent value in that department. The specialization of journals is thus but the natural result of that specialization of study and practice which is the inevitable result of the growth of knowledge. The power of this tendency to specialization has shown itself in the gradual development of this journal from being the simple record of a special local society to a point where it may presume to claim consideration as an exponent of American surgery in general. In order to favor the future development of the journal, the Anatomical and Surgical Society of Brooklyn, by whose direction and support it was inaugurated, have relinquished their special interest in it, and henceforth its editors will be solely responsible for its contents and character.

We heartily commend the "Annals" as a carefully prepared mirror of the progress of anatomy and surgery, and as a particularly handsome journal.

BORIC ACID.—Neumann has, in view of the extensive use of boric acid, instituted experiments to ascertain more precisely its physiological effects. A dog of the weight of fifteen kilogrammes presented no marked symptoms from a dose of five or six grammes, but a marked fall in internal temperature was produced. Larger doses caused also vomiting and diarrhoea. A three-per-cent. solution injected into the pleural or peritoneal cavity did not cause inflammation of the serous membrane; but, whenever the quantity injected exceeded certain limits, the animals died from paralysis of the motor nerves and muscles. Results of identical character were also furnished by experiments on rabbits and young pigs. Boric acid was given to horses affected with glanders up to forty-five grammes (? a dose), and the nasal ulcerations were treated with the same substance. A transient amelioration in the condition of the animals was the result, but none recovered. Boric acid may thus be regarded as not only an antiputrescent, but also an antipyretic, comparable to carbolic acid.—*The Lancet*.

FERRUGINOUS LIVERS.—The presence of an excess of iron in the livers of anæmic patients is a curious fact, of which several instances have been described in Germany. One case was described by Stahel; and Lindenlang, in the liver of a patient with purpura, found a considerable excess of iron. Marchand has lately described the liver of a phthisical patient, aged sixty years, which presented an unusual brownish-red color associated with evident cirrhosis. The microscope showed an infiltration of the hepatic cells and of the interstitial connective tissue by pigmentary corpuscles, which gave the characteristic test for iron with yellow ferrocyanide. A chemical analysis showed that the ashes contained not less than thirty per cent. of iron. It has been supposed that the excess of iron is the result of an abnormal destruction of red blood corpuscles in the organ, but it is open to question whether it is more than the result of the free administration of iron by the mouth.—*The Lancet*.

THE INFLUENCE OF ALTITUDE ON HEALTH.—This subject (which was one of special local interest) was treated at some length at the Geneva Congress by the president, Dr. Lombard. He attached particular importance to the hygienic advantages to be derived from moderate altitudes of, say, fifteen hundred to three thousand feet, in contradistinction to the effects produced by the more lofty portions of the mountainous regions of Switzerland and other countries. He dwelt on the

advantages of the Engadine as a residence for persons of consumptive tendencies, and also described some of the sanatoria in the Himalaya Mountains. M. Paul Bert, while agreeing with the general principles laid down by Dr. Lombard, contributed some interesting details as to experiments he had made in his own person (in conjunction with several scientific friends) with a view to proving the efficacy of the inhalation of oxygen as a restorative process in cases where the excessive rarefaction of the atmosphere at extreme altitudes produces a kind of asphyxia. The general tendency of M. Bert's theory is to supply the oxygen which is wanting in the air at such heights, and the experiments he and his friends made consisted of the production, by artificial means, of this "mountain-sickness," and its removal by the inhalation of air with a full proportion of oxygen. The subsequent experiences of aeronauts tend also to prove that the inhalation of oxygen is an immediate remedy for the quickening of the pulse and of the respiration, the headache, somnolence, and partial loss of reason, which are among the symptoms of the injurious effects of extreme altitudes.—*The Lancet*.

THE REGISTRATION OF VITAL STATISTICS.—The subject of registration of vital statistics is one of the most important, and at the same time most difficult, in sanitary as well as social science. Its difficulties are in part due to its apparent simplicity. Before studying it, and attempting to obtain practical results, almost every one is disposed to think that he understands it, and is quite ready, not only to undertake the duties of registrar or census superintendent, but to prepare a law or ordinance regulating the matter. After one has investigated the matter a little, and has become somewhat acquainted with the methods in use, it is not unlikely that he will suppose that he has made some remarkable discoveries of causes of error, imperfect returns, insufficient tabulations, and erroneous conclusions, and will thereupon proceed to prepare a paper criticising the work of his predecessors and proposing reform. It is probable, however, as he continues his studies, that he will find that his discoveries are not new, that there are various practical objections to his proposed improvements, and that it is much easier to confine his essay to denunciation of that which is, than to point out clearly and definitely that which ought to be, and which is at the same time practicable. This has been the experience of Dr. John S. Billings, as related in a paper published in the "*American Journal of the Medical Sciences*" for January, 1883; he has, however, succeeded in making a valuable report on the systems of registration of vital statistics in nearly all countries, showing the value of such statistics for legal purposes, in identifying individuals in their relations to their families and the community, for the prevention and detection of crime, for furnishing data for sanitary purposes, and as bearing on the laws of human development.

SIMONNOT'S ANTI-BLENNORRAGIC BOLUSES.—The "*Journal de médecine de Paris*" gives the following formul

Copaiba balsam.....	25 grammes;
powdered cubeb.....	122 "
wax.....	12 "
powdered rhatany.....	9 "
carbonate of magnesium.....	6 "

To be made into boluses of 1 gramme each, which are to be rolled in subcarbonate of iron, and coated with an ethereal solution of tolu balsam and mastic.

CHLOROFORM IN LABOR.—Dr. Fancourt Barnes ("*Brit. Med. Jour.*," Oct. 21, 1882) attributes the comparative innocuousness of chloroform in obstetric practice to the physiological increase of power gained by the heart during pregnancy.

It is said that in Ontario there is one physician to every 1,125 inhabitants.

THE CHANCE OF A EUROPEAN CHOLERA EPIDEMIC.—Already there is a moderate prevalence of cholera in Arabia, and its extension to Europe can be prevented, says a recent writer in the "*Revue Médicale*," only by stringent action by the Turkish government and by the British in Egypt.

THE NEW YORK POST-GRADUATE MEDICAL SCHOOL has thus far met with gratifying success. The second term opens January 8, 1883, and continues until April 28th without intermission. It is hoped that, with its enlarged accommodations, improved facilities for instruction, and increased corps of teachers, it will meet with still greater success.

THE NEW YORK OPHTHALMIC AND AURAL INSTITUTE.—At the annual meeting of the Board of Trustees of the New York Ophthalmic and Aural Institute, on Tuesday, 16th, the following officers were elected for the ensuing year: President, Frederick Swinton; Vice-Presidents, Drs. W. A. Draper and William A. Wheelock; Secretary, Eugene S. Ballin; Treasurer, Philip Bissinger. The treasurer reported \$15,412.28 receipts, and \$17,320.33 expenses, leaving a deficit for 1882 of \$1,908.05. The Medical Report shows that in the Dispensary 6,425, and in the Hospital 320, patients were treated, and that 550 operations were performed during the year. Of these operations, 97 were for cataract. In thirteen years there have been treated in this institution 63,789 patients, and 5,835 operations have been performed.

SUCCESSFUL TRANSPLANTATION OF MUSCLE.—Gluck (Berlin) has shown, by experiments upon animals, that muscular tissue can be successfully transplanted. In February last, Helferich (Munich) removed a tumor from the upper part of a man's arm, and in doing so had to remove nearly the whole thickness of the biceps muscle, to the extent of four and a half inches. To remedy this defect, he transplanted a slightly longer and thicker portion of the *biceps femoris* of a dog, securing it by catgut sutures at both ends. The operation was performed with strict antiseptic precautions, minus the spray. At the first dressing, ten days after the operation, it was found that a portion of the transplanted muscle, the full length of the original portion, but not an eighth part of its thickness, was "necrosed." After that the wound healed rapidly. The subsequent application of electricity restored the function of the arm, and it appeared to those who observed the case that the transplanted muscle contracted under its application. This case was reported at the German Surgical Congress in June last, and, in the discussion which followed, Lange (New York) stated that he also had transplanted a piece of dog's muscle to fill a defect caused by an operation, and that the graft had united, but showed no signs of functional activity.—*Beilage z. Central. f. Chir.*, 1882, No. 29, D. (*Glasgow Medical Journal*.)

PERFORATION OF THE INTESTINE BY ROUND WORMS ("Deutsch. Arch. f. klin. Med.," 29 B.).—Dr. E. Marcus reports the case of a thirteen-and-a-half-year girl, intellectually badly developed, an onanist, who sickened suddenly, with symptoms of vomiting and pain in the abdomen of such violent nature that she became mad, and could not be examined. On the next day there was well-marked, diffuse peritonitis, and six days later she died. At the autopsy, besides the diffuse purulent peritonitis, there were found (still living) in the pars descendens of the duodenum three large round worms. On the inner side of the intestine was a perforation six mm. long, the bloodless edges of which lay quite close upon one another. In the duodenum were four more worms. The deceased Professor Perls declared this case to be one of ascarido-phagic perforation, the existence of which he had previously doubted. Leuckart, in his time, acknowledged without hesitation the possibility of such intestinal perforation, and veterinary surgeons have made observations of cases which can not be disputed.—*The American Journal of Obstetrics and Diseases of Women and Children*.

ARMY INTELLIGENCE.—*Official List of Changes of Stations and Duties of Officers of the Medical Department, United States Army, from January 6, 1883, to January 13, 1883.*—SKINNER, JOHN O., Captain and Assistant Surgeon. Granted leave of absence for one month. Par. 2, S. O. 5, A. G. O., January 6, 1883. — WOOD, MARSHALL W., Captain and Assistant Surgeon. Granted leave of absence for one month. Par. 3, S. O. 4, Department of the East, January 8, 1883. — MUNDAY, BENJAMIN, First Lieutenant and Assistant Surgeon. Assigned to duty at Fort Klamath, Oregon. Par. 3, S. O. 195, Department of the Columbia, December 29, 1882. — JOHNSON, R. W., First Lieutenant and Assistant Surgeon. Granted leave of absence for one month. Par. 2, S. O. 4, Department of Dakota, January 5, 1883.

Lectures and Addresses.

LECTURES ON
HUMAN AUTOMATISM.

DELIVERED AT THE LOWELL INSTITUTE, BOSTON.

By WILLIAM B. CARPENTER, M.D., LL.D., F.R.S., ETC.

LECTURE II.

(Concluded from page 88.)

I pass from these to the animals of the *articulate* type, in which the segments of the body are arranged in longitudinal series, instead of round a center; and I take as an example of this type the *centipede*, in which the succession of segments making up the body is nearly uniform, every one having its pair of legs, while in the front is a head furnished with a pair of eyes, and with other organs of sense in relation with the mouth. The nervous centers are arranged in a similar series, each segment having its own ganglion in connection with its pair of legs; and the movements of these propel the animal, not in any direction, like the flapping movements of the *Medusæ* or the swimming of the *Comatulæ*, but *forward*, or in the direction of the head, and which has within it a pair of large ganglia that are in direct connection with the eyes.

I must here stop to describe the difference between a nerve trunk and a ganglionic center. In the cases which I have already brought before you that distinction is not apparent, the whole of that peculiar modification of protoplasmic substance of which it is essentially composed seeming to possess a like power both of generating and of conducting what we call "nerve force." But we have now arrived at a grade of specialization in which the difference between the nerve fiber that conducts and the nerve center that generates the force is distinctly marked. That nerve center we call a *ganglion* (which comes down to us from the old Greek writers on medicine), the term ganglion merely meaning a knot upon a cord. And we have further to speak of what we term "reflex action"—namely, the physical action which takes place in those ganglionic centers, in response to impressions brought to them by *afferent* nerve fibers, which are (so to speak) reflected downward to the muscles by a distinct set of *motor* fibers. Now, we have a very good illustration of this kind of action in a curious animal with which some of you may be acquainted—the *Ascidia*, belonging to the lower type of aquatic mollusca—which has a complicated visceral apparatus inclosed in a firm membranous bag with two openings. Through one of these openings water is continually being drawn in, not by any muscular action of the bag itself, but by the agency of the cilia which clothe the whole of the respiratory surfaces in its interior, and keep up over them a constant flow of incoming water. Of the current thus produced, one portion passes on to the entrance of the stomach, which lies at the bottom of the bag; and, after passing through the alimentary canal, and yielding up any nutritive particles which the water may bring in, it meets the part which has passed over

the respiratory surfaces and aerated the blood; and the two united streams pass forth by the excurrent orifice. Now, the interior of this bag is crossed by muscular fibers in various directions, and the incurrent orifice is surrounded by what appear to be sensory tentacles. It is impossible to say what degree of consciousness this animal has; but I think it must possess some form of sensation. If any particle larger than usual comes against one of these tentacles, there is an immediate contraction of the muscular bag, and the particle is driven away by the ejection, from the orifice of entrance, of a jet of water, which carries it off. Now, it will occur to you that this action is a sort of cough on the part of the animal, being exactly parallel to the act of coughing in ourselves, which I analyzed to you in the last lecture, and being executed by a respiratory ganglion which is situated between the two orifices. This ganglion, with the nerve fibers connected with it, seems to constitute the whole nervous system of the animal. One set of fibers (afferent) comes to it from the oral tentacles; another set (motor) proceeds from it, to be distributed to the muscular wall of the bag. The *neurosis* generated by the impression made upon the tentacles is conveyed by the afferent nerve fibers to the ganglionic center, and from that center a *neurosis* is "reflected" along the set of motor fibers which proceed to the muscles, calling forth their contraction.

Now, in the centipede we find each segment of the body possessing a ganglion of its own, connected by nerve fibers with the legs and their muscles; and as these segments closely resemble one another in their structure and actions, so also do their ganglionic centers, the only marked difference being in the two ganglia of the head which are connected with the eyes. Now, we will analyze the actions of this creature and see what conclusions we may draw from them. In the first place, every pair of legs is connected with the ganglion in its own segment by nerve trunks; and each of these, we have every reason to believe (Sir Charles Bell's researches having shown it to be the case in our own nerve trunks), contains both sets of nerve fibers—"afferent" fibers proceeding toward the ganglion from the sensory termination of the leg, and "motor" fibers proceeding from the ganglia to the muscles of the leg. Now, we often meet with these "hundred-legs" when we are digging in the ground, or see some other types of them in the midst of rotten wood. And you have, doubtless, seen that, if in digging you cut one of them across with your spade, both parts of the body will continue to run for some time. Now, as this movement must be maintained in the hinder part by the purely automatic action of its legs, every pair of them receiving its nervous supply from its own ganglion, the action of the legs in the fore part of the body may be fairly attributed to the like automatic mechanism, under the direction and control of the ganglia in the head. My late friend, Mr. Newport, the celebrated insect anatomist, made the following experiment upon one of the common small centipedes of our own country: He took out the gangliated cord from the middle segments of the body, without dividing the body itself, and found, as he expected, that while the legs of these segments were perfectly paralyzed,

the hinder legs were not paralyzed, but went on moving, as did the fore legs also, so that the body continued to move onward without the participation of the middle legs. But a very curious thing showed itself when he brought an obstacle in front of the animal that it could not get over; for while the front legs stopped—the animal being made aware of that obstacle by the visual impression transmitted to the optic ganglia, by which the actions of the ganglia of the front segments were controlled through the longitudinal cord of connection—the legs of the hinder part of the body went on moving, and pushed the body onward so that its front portion rose against the obstacle. This clearly depended on the continuance of the automatic action in the hind legs, which were removed from the control of the animal, the intermediate part of the longitudinal nerve cord having been cut away, while, on the other hand, the front legs were kept still by a similar automatism (I think we may believe) directed by the optic ganglia through which the animal was made conscious of the obstacle.

We may find in the actions of insects very clear exemplification of the same type of reflex action. Here is one which is known in France and in other countries by the term of the Praying Mantis—the *prie-Dieu* of the French—on account of the particular attitude in which it lies in wait for its prey—stretching out his first pair of legs, which act as arms, somewhat in the attitude of prayer. Here we have the head, then the first long segment of the body with its pair of predacious arms attached to it, and then the two other segments of the thorax, carrying the two pairs of wings, and the other two pairs of legs. Now, when any unlucky insect comes within reach, the mantis embraces it with these arms, forces its claws into its body, and soon devours it. Now, if the head of the mantis be cut off, the body will continue in the same position; and though it can not see when an insect comes near it, yet if an insect is brought within its claws, and is made to touch them, the arms will immediately contract and close around it; and if this segment of the body be separated from the rest, the arms can still be made to close, and will remain in the same condition for some time afterward. Further, when the rest of the body is still maintaining its position, supported by the two hinder pair of legs, and an attempt is made to overthrow it, the wings will immediately begin to be violently agitated. It is obvious, then, that all these are purely reflex actions, automatically sustained by the nerve centers, and not controlled by anything which we can call will on the part of the individual. They are types of pure physical automatism.

That a particular stimulus may be required to call forth a respondent movement is shown by the fact that, if a water-beetle called the *Dytiscus*, from the head of which the ganglionic centers have been removed, be placed upon a dry surface, it remains motionless, while, if cast into water, it executes the usual swimming movements with great energy and activity, though obviously destitute of any power of avoiding the obstacles of which, in its normal condition, it would be informed by its sense of sight.

Now, what actions of the like kind are performed by our

bodies? We find a parallel to them in a number of movements which show themselves in the very earliest stage of infancy, and which continue throughout our lives; and also in a number of morbid phenomena which occasionally present themselves in various combinations, and to which it will be useful to refer as additional illustrations of the same type of action.

Take, in the first instance, the act of sucking in the infant. The first thing the infant does when it comes into the world is to cry, and the next thing is to suck. The latter is effected by a combination of a number of separate muscular movements, all tending to the same action—the creation of a vacuum in the mouth; and when the milk flows into the mouth, to take the place of the vacuum, it is swallowed as fast as it is received, by another combination of muscular actions. Thus, in the act of sucking, two distinct groups of automatic movements are combined—that which is concerned in respiration, and that which is concerned in swallowing; and the combination is altogether an extremely complex one. Yet that combination is made, we are perfectly certain, quite independently of the cerebrum or brain proper, and by a purely automatic action of the lower nervous centers. Vertebrate animals have at the base of the skull, passing forward from the entrance of the spinal cord, a chain of ganglionic centers connected with the several organs of sense, behind which, just within the skull, and continuous with the spinal cord beneath, is a set of ganglionic masses which serve as the centers of the reflex actions of respiration and deglutition (swallowing). The cerebral hemispheres, on the other hand, are super-added organs, the size of which has no relation whatever to that of the other ganglia; and they seem to be in connection, not directly with the sensory and motor nerve trunks, but with the gangliated tract they overlie, in which these trunks have their proper centers. We find, in fact, that, the larger the cerebrum, the smaller are the other ganglia in proportion to it. In the fish, the brain consists almost exclusively of this series of ganglia, there being nothing that can be certainly called a cerebrum. But, in ascending through the class of reptiles to birds, we find the cerebrum progressively increasing in size, while still retaining a very simple type of structure. And as we pass from birds to mammals, and from the lower to the higher orders of the latter, we meet with a very marked increase, not only in the relative size, but in the complexity of the cerebrum, which increase seems to correspond with the predominance of the reasoning faculty (manifested in the *purposive* adaptation of means to ends) as a spring of action over irrational instinct. Now, it has been proved that the action of sucking in the infant is entirely independent of the cerebrum, for infants have been born without any cerebrum at all, and yet have lived, and sucked, and moved for some hours, or even days, afterward. And the experiment has been made of removing the cerebrum from new-born puppies, which have been found to suck just as well without the cerebrum as with it. Hence, it is clear that the action is purely automatic; and its "reflex" character is shown by the fact that it is excited in such cases by placing the finger moistened with milk in contact with the lips. Thus, the first action of our infancy—the one most

immediately necessary for the maintenance of physical life—is provided for entirely by this automatic mechanism. The same provision is made, as I pointed out to you in the previous lecture, in regard to the movements of respiration, which are sustained through the whole of life through the same apparatus, without any will or concern of ours, excepting that which we interpose for the purposes of speech, or for any experiment we may make upon our respiratory action. The normal rhythmical movement is sustained regularly and according to our requirements by the reflex action of the ganglionic centers that lie at the top of our spinal cord, just within the skull, the ordinary stimulus to that action being the presence of venous blood in the lungs, and this stimulus being augmented in force when imperfectly aerated blood is sent into the systemic circulation. So, again, the act of swallowing is in itself a purely reflex movement. You may be surprised when I say so, as you may think that you swallow by an effort of the will. What you really do is to carry, by the act of will, the substance to be swallowed within the reach of the real swallowing muscles, which then lay hold of it just as automatically as do the tentacles of a sea anemone, that lay hold of a small crab, or a bit of fish which you put within their reach, and carry it down into its stomach. Your own muscles of swallowing surround the funnel-shaped dilatation at the top of the gullet, into which the muscles of the mouth convey the food or drink to be sent down into the stomach; and these muscles are called into involuntary contraction by the impression thus made upon the lining membrane of the gullet—as is shown by an experiment you may try if you choose. If you pass a feather quickly backward and downward a little way down your own throat, or that of another person, you will find the feather laid hold of and drawn downward, so that, if it be not held firmly in the fingers of the person who introduces it, it will be taken out of them and carried down the gullet by the automatic action of its muscles. You know that when once the morsel has passed the “swallow” it is propelled downward into the stomach exclusively by the automatic movements of the muscles of the gullet, the will having no control over it, and no consciousness of its passage being excited, unless either its bulk or its temperature makes an unusual impression on the sensory nerves of the part. When the food reaches the stomach, you are aware that it is kept in a state of constant motion during the process of digestion—a motion of a very curious churning kind, kept up by the contractions of the muscular wall of the stomach, which (as it were) keep perpetually turning the mass within it inside out, so as constantly to bring the freshly introduced portions of the food to the exterior and subject them to the action of the gastric fluid secreted in the coat of the stomach, and which then carry them again toward the interior, and bring other portions to the outside. A remarkable evidence of this kind of movement is sometimes presented by the hair-balls that are found in the interior of the stomachs of oxen, these consisting of the hairs which have been licked away by the animals and have been carried into their stomachs; for these hair-balls are found to have the hair twisted and twined in the most remarkable manner, which can only be accounted for by this

peculiar, constant, restless, churning action of the stomach. No less automatic is the action of the two valves of the stomach, the one closing the termination of the gullet, so as (under ordinary circumstances) to prevent the regurgitation of the food, and the other at the pyloric orifice, which opens to allow the product of digestion to escape into the intestines. The action of these valves is altogether automatic; we have nothing to do with it, and, ordinarily, know nothing about it. When, however, the normal peristaltic movement of the stomach is reversed, as may occur to us in crossing the Atlantic, and the valve which guards the entrance of the œsophagus opens the wrong way, we do become unpleasantly conscious of what is passing within us; but this derangement of our automatism is altogether exceptional, the healthy man not being made aware, by any internal feeling even, that he has any stomach at all. The same may be said of the peristaltic action of the muscular wall of the intestinal canal, which automatically propels onward the contents of that canal until we again become conscious of their presence as they approach its outlet.

Take, again, the action of the heart, which is even more removed from our consciousness, excepting when it is disturbed by emotional influences, than even that of the stomach and intestines. This action goes on with perfect rhythmical regularity, accelerated under some conditions and decreased under others, through the whole course of our lives. Let that action be completely suspended even for a few minutes, and life entirely departs. In cases of longer apparent suspension, I believe that there is always a small, feeble action of the heart going on, for I do not think that without it life could be sustained at all.

Now, in all these cases you observe, then, that it is for the maintenance of the organic functions which supply the conditions for the exercise of the animal functions that this *primary* or *original* automatism is provided in the structure of our bodies. In the lower animals we have seen that the whole life of the creature is automatic, the movements of locomotion, as well as those connected with the organic functions, being thus provided for. But, in the case of man, the movements which make up his proper *animal* life have to be learned; and the mode of that training and acquirement will be the special subject of the next lecture. I think I shall then be able to show you that, when once learned, his habitual movements become as automatic in themselves as the movements of the lower animals, although they remain under the control of his will. We can set them going, and then leave them to themselves; but we can stop them whenever we please.

There is only one other point to which I shall direct your attention this evening—namely, that we have in ourselves actions of the same automatic character, which are connected with *sense*-impressions of which we are conscious, and which seem to me of the same kind as the visual automatism that obviously directs the movements of the centipede or mantis. The start at a loud sound, or the closing of the lids at a flash of light or at the sudden approach of an object, are actions as purely reflex as any of those that I have spoken of, though excited through a nerve center which does not seem to call them forth unless the conscious-

ness is excited. We require to *hear* the sound for the start to be produced; we require to *see* the flash of light for the sudden closure of the lids to take place. And I may illustrate this distinction by a very remarkable incident which happened some years ago to my late friend Sir Benjamin Brodie, the chemist, the son of the distinguished physiologist and surgeon, Sir Benjamin Brodie, a former President of the Royal Society. When Professor of Chemistry at Oxford, Sir Benjamin Brodie was experimenting upon a peculiarly explosive fluid of his own discovery, and was holding a small bottle of this fluid between his eyes and the light. Either through the tremulous motion or the warmth of his hand the fluid exploded with such violence as to blow to pieces—to dust, in fact—the bottle which contained it; and his first thought was, “I am blinded; this glass has been driven into my eyes, and I shall never see again!” Upon putting his hand to his eyes, however, he found that the glass had gone entirely into the *outside* of his lids, and that his eyes were perfectly safe. Either the flash of light or the explosion (which occurred first I do not know) had called forth an instantaneous respondent muscular movement, which protected his eyes by the closure of his eyelids.

Original Communications.

THE HISTORY OF ORTHOPÆDY.*

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THE necessity of studying the treatment of deformities was admitted by the ancients, for we have from Hippocrates himself, who has been styled the “Father of Medicine,” a treatise “On Articulations,” in which he taught the proper method of bandaging, in cases of the infantile deformity of club-foot, which even in this day might be employed with advantage; for any theory of treatment founded upon correct ideas remains true forever. Celsus described the radical cure of hare-lip, and of various other congenital deformities, in a manner similar to that of the present day. As time went on, various persons attempted to ascertain the correct method of remedying deformities of the human frame. Empirics, and pretenders of all sorts, appeared from time to time, who professed to have discovered “the true secret,” and as there has always existed, and still exists, in the human mind, a disposition to admire the marvelous, and to be governed by decided assertion, without proper and careful investigation into facts, so men then became, as they now become, the dupes of the designing quack, who flourished and grew important through their weakness and credulity.

This tendency of human nature has shown itself, however, quite as much in other branches of the medical art as in that of orthopædy. Nothing can check this but the proper

education of the mind, whereby it is accustomed to examine and study into the *truth* of every proposition presented for its consideration.

Pretenders and quacks invariably publish accounts of their wonderful cures, and the miracles they have performed, in the secular press, or in other than scientific and professional journals, never laying down any laws or rules to aid another in performing the same cure in similar cases. And this constitutes one of the essential differences between an honorable physician and the quack. The one labors to disseminate and diffuse his knowledge for the benefit of his whole profession, in order that he may relieve as much of human suffering as is within his power; the other endeavors to conceal the little knowledge he may possess for his own particular profit or gain.

The importance of the subject no one can deny who pays the slightest attention to the numerous cases of malformation and deformity which we observe in every-day life. You can scarcely walk a block in this crowded city, or visit any of the smaller towns and villages of our wide-spread country, without seeing malformed or crippled sufferers, whose countenance bears the impress of mortified pride at their unfortunate condition, frequently connected with expressions of intense pain, produced by their abnormal physical position; hence the necessity of giving a special course of lectures on this particular department of surgery.

The etymology of the term has been in considerable doubt; Andry, of Paris, who has been generally regarded as the founder of this branch of surgery, derived it, to use his own words, “from *ὀρθός* which signifies *straight, free from deformity*; and *παῖδιον*, a *child*. Out of these two words I compound that of *orthopædia*, to express in one term the design I propose, which is to teach the different methods of preventing and correcting the deformities of children.” *

Other authors, however, derive the second part of the word, some from *παῖς*, a *child*, and others from *pes*, a *foot*; but both of these derivations seem inadequate to express the full sense of orthopædic surgery in the present day, limiting its extent as they do in one case to deformities of children, and in the other to those of the feet; whereas at the present time it extends not only to adults as well as children, but to deformities of all parts of the body. I would prefer, therefore, to derive the word from *ὀρθός*, *straight*, and *παιδεύω*, *I educate*; this is more comprehensive, and embraces all deformities of the human frame, and also designates the principles of treatment. But as this would necessitate the coining of a new word to take the place of the one which has been recognized by general usage, I prefer to retain the term *orthopædia*, with the explanation above given.

The history of orthopædic surgery carries us back to an ancient date, and Holland seems to have been the birth-place of this branch of surgery. The first case of tenotomy for the removal of deformity is recorded by Tulpius, who mentions *Isacius Minius*, a Dutch surgeon, as having per-

* From the forthcoming second edition of Professor Sayre's “Lectures on Orthopædic Surgery and Diseases of the Joints.” New York: D. Appleton & Co.

* See “L'orthopédie, ou l'art de prévenir et de corriger dans les enfans les déformités du corps,” à Paris, 1741.

formed it in the year 1685, in the case of a boy, twelve years old, for the relief of *wry-neck*.*

Solingen also performed the same operation in the seventeenth century,† and Meeckren, Roonhuysen, and other Dutch surgeons, have left recorded cases; still, the great value of the operation had not been discovered or understood; for the great surgeon Boerhaave, and all medical writers of the former half of the eighteenth century, maintained the great sensibility of tendons and the grave danger in their section, so that we find *De la Sourdière* writes in 1742, as the closing words of a memoir, "The section of tendons ought, then, to be avoided."

Tenotomy consequently fell into disuse for nearly a century. In 1780 Andreas Venel, of Switzerland, established an institution in which he treated deformities of the human frame, club-foot, spinal curvature, etc. The first operation for the relief of club-foot by division of the tendo Achillis was performed by *Lorenz*, of Frankfort, at the request of *Thilenius*, on the 26th of March, 1782, in the case of a young woman, seventeen years old, by making a complete division of the soft parts, embracing the tendon from its anterior limits posteriorly. This allowed of an immediate descent of the os calcis to the extent of two inches, and in six weeks the wound was healed.‡

In 1803 Scarpa invented and made use of a shoe adapted to the bones of the distorted foot.

On November 16, 1809, *Michaelis* effected an imperfect section of the tendo Achillis.

Sartorius performed tenotomy on the son of *Martin Oust*, in May, 1812, with good result, but did not succeed in introducing the operation into Germany.

Tenotomy was not performed again till *Delpech* operated by dividing the tendo Achillis in a child, six years of age, on the 9th of May, 1816,* by transfixing the leg in front of the tendon with a sharp-pointed bistoury, incising the skin to the extent of an inch on each side, and then dividing the tendon with a convex knife. The wound had not healed at the end of three months, and the result was only a partial success. ||

In 1822 and 1823 *Dupuytren* operated twice for wry-neck, and improved that operation as previously practiced.

The great discovery of *subcutaneous tenotomy* was, however, reserved for the genius of *Louis Stromeyer*, of Hanover, who first performed that operation in February, 1831,△ and published his first six cases in 1834. Possessed of great talent, ardor, and energy, he caused his new principle to be generally known, and many great cures have since been effected by its application.

The names of *Brückner*, *Camper*, *Wenzel*, *Palletta*, *Jackson*, *Sömmering*, *Heine*, and others, must not be forgotten, as each one assisted to develop scientific knowledge and

orthopædic surgery. Also, *Dieffenbach*, *Langenbeck*, and many others in Germany, accomplished much; while in France we find those of *Bouvier*, *Bonnet*, *Guérin*, *Marjolin*, *Major*, *Delpech*, and *Malgaigne*, conspicuous.

In England, *Dr. Little* stands pre-eminent, having introduced orthopædy into that country. Having suffered himself from congenital club-foot, he knew how to estimate the relief afforded; and to his exertions and energy London owes the establishment of the Royal Orthopædic Hospital. Within the first ten years succeeding its establishment, *twelve thousand* patients were there treated, which alone is a proof of its necessity. *Dr. Little's* colleagues, *Tamplin*, *Lonsdale*, *Broadhurst*, and *Adams*, have also done good service in the cause of orthopædic surgery and science.

In our own country orthopædy met with very serious obstacles, the profession being seriously opposed to any innovation, and particularly to any subdivision of medical science into specialties. And many medical men of even great professional attainments, unwilling or unable to take the tedious trouble of attending to serious cases of deformity, would recommend such cases to various instrument-makers, in order to get rid of them; and these, mere mechanics, sustained by such recommendation, soon began to assume the name and responsibilities of "doctor," and would undertake the treatment of deformities, instead of adhering to their legitimate business, which was the manufacture of such instrumental aids as an intelligent surgeon might devise.

The injury thus inflicted on medical science and professional honor can only be properly appreciated by those who, like myself, have had frequent opportunities to witness its disastrous result.

Dr. David L. Rogers, of this city, was the first to perform tenotomy in this country; he divided the tendo Achillis in 1834, assisted by my colleague, Professor *James R. Wood*.

Dr. Richardson, of Kentucky, wrote an elaborate and instructive essay on the subject in 1838.

Dr. Detmold, who is now a Professor of Orthopædic Surgery in the College of Physicians and Surgeons in this city, a German himself, and who had enjoyed the advantages of Professor *Stromeyer's* instruction in Germany, introduced among us subcutaneous *myotomy* in 1837, three years subsequent to the introduction of tenotomy by *Dr. Rogers*, and made zealous efforts to render us conversant with its technicalities and therapeutic efficacy.

Dr. Valentine Mott, in his "Travels in the East and in Europe," published in 1842, expressed himself in the highest terms of admiration of orthopædic art, as he had seen it in Paris. It is but just to this distinguished surgeon that I should quote from his narrative, above referred to, in order to show how immeasurably he was in advance of the profession at that time. In fact, in his declining years, we here see abundant evidence that he was still entitled to the appellation of a *pioneer*.

He says: "It was my happy lot, even at my advancing time of life, to have resided in this capital (Paris), and to have witnessed, also, the dawning, as well as the meridian splendor of another new and illustrious era in the healing

* See *Tulpius*, "Observationes Medicæ," liber iv, caput 58, p. 372, 1685.

† See "Thèse de Jaeger," 1837.

‡ This case is recorded in "Chirurgische Bemerkungen," 1784.

* See "Mott's Velpeau," vol. i, p. 430.

|| See "Nature and Treatment of the Deformities of the Human Frame," by *W. J. Little, M.D.*, London, 1863.

△ See "Gross's System of Surgery," vol. i, p. 501, 6th ed.

art; I refer to that beautiful and exact science, *limitedly* denominated *orthopædic surgery*.

"This great improvement, both in mechanical and operative surgery, is destined to be to the human frame what vaccination is and has been to the human features. As the discovery of Jenner has rid the world of a loathsome pestilence, and banished from our sight those disfigurements which made the most lovely lineaments and complexions hideous to behold, so will orthopædic surgery, by its magic touch, unbind the fettered limbs, restore symmetry to the distorted form, give mobility to the imprisoned tongue, and directness to the orb of vision.

"Like many other of the glorious achievements of surgery, it is based upon such simple and self-evident principles that it can not but be attractive, and carry home conviction to the plainest capacities. Its adoption must therefore be universal; and the more so, because liberally and extensively as the knife may be used, untwisting, as it literally does, the most misshapen and revolting and convoluted masses of deformity, by dividing deep, yet safely, under the skin, through the thickest and broadest muscles; yet are these operations, in many instances, almost *free from pain*, and without a *drop of blood*!

"And another remarkable feature, and one which gives the charm of magic to this truly brilliant triumph of our art, is the almost instantaneous restoration of every distorted part as soon as cut, and the righting of the limbs, the trunk and head, to their wonted beautiful symmetry and proportions, as the proud ship that has been bent down to the rude storm recovers her position, and resumes her stately course, when the shrouds have been cut away."

And further on he says: "Having myself pursued this new branch, as a student with my friend Guérin, for the last three years, and personally traced it through every step of its rapid progress from its birthday, I may say to its present perfect condition, I have thought that I could in no manner so well express my gratitude to him, to my country, and to my friends, for the kind feelings with which they have been pleased to cherish my name, as by attempting to found in this city of New York an American Orthopædic Institution, by which the principles and practice of that interesting science may be diffused far and wide through this my native land."

It was a great and melancholy misfortune, for our age and profession, that his career was so suddenly terminated; that thus the great desire of his life was not carried into practical execution.

Gentlemen, the ardent zeal with which this distinguished surgeon—the acknowledged head of his profession—devoted himself to the study of this new branch of the healing art is well worthy of your admiration and imitation. We here see one whose name was already recorded in the undying history of surgery on its very brightest pages, and who had already won its most brilliant and unfading laurels, applying himself for three long years as a student under the distinguished French surgeon, Jules Guérin, in order that he might become a perfect master of this new art. Strange to say, we find at the present day some young gentlemen complaining that three years is almost *too long* to obtain a

perfect knowledge of *all* the *different departments* of our profession. Yet a man who had devoted his life to this great work, who had more knowledge and reputation than almost any man our country has produced, and who had performed some of the most wonderful operations in the world, was thus willing to devote *three separate years* to this *one branch* of our profession.

You have in this fact exhibited one of the principal causes of this great man's most brilliant success. It was his constant and undeviating devotion to the study of his choice; his faithful application, and his unwearied toil, his determination to master all that genius had conceived, or industry developed, which was *new* in the profession of his adoption, which might add to its utility or give the power of relieving human beings in suffering and misery. It is an example worthy your imitation, and will lead any young man, who will make it his model, to ultimate success and honorable distinction.

Dr. Henry J. Bigelow, of Boston, published a work in 1845—it being a dissertation upon orthopædic surgery—which obtained the Boylston Prize for 1844, and was written on the following question: "In what Cases and to what Extent is the Division of Muscles, Tendons, or other Parts, proper for the Relief of Deformity or Lameness?" It was written after studying the works of Guérin, Bonnet, Velpeau, Phillips, Duval, and Little.

Since that time many gentlemen in different parts of the world have devoted special attention to this particular department of surgery; and many improvements have been made in the surgical treatment and mechanical devices for the purpose of relieving deformities of various parts of the body; still, at present orthopædic surgery is but imperfectly understood among us, and but few feel competent to practice it.

ON THE DIFFERENTIAL INDICATIONS FOR THE USE OF DYNAMIC AND FRANKLINIC, OR STATIC ELECTRICITY.*

By A. D. ROCKWELL, A. M., M. D.,

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ONE of the most difficult things in medicine is to correctly differentiate between the various remedies that may be suggested for a given disease.

I propose this evening very briefly to follow out this thought, so far as it relates to that much used, but much abused agent, electricity; for, now that it has in great measure been wrested from the hands of charlatans, it is in not a little danger of being wounded in the home of its friends. When a distinguished professor can say to a large class of students that a simple faradic apparatus will practically answer every purpose in medical electricity, it is in order still further to discuss the subject. Although well known that electricity is a generic term, including a wide variety of manifestations, yet in practice it is too apt to be forgotten. It should be remembered that when the statement is made that electricity has been used, it can convey but little to

* Read before the New York County Medical Society, January 22, 1883.

one's mind, unless the *kind* of electricity is mentioned, and, still further, the method of its application.

We have galvanic, faradic, and franklinic, or static electricity, each one of which differs from the others, both in its physical and physiological aspects, and necessarily in its therapeutical properties. Each one of these is effective also, according to the method of its application. Now, it is not to be supposed that one form of electricity is alone adapted to one line of diseases, a second to another, and a third to still another. There are indeed certain pathological conditions which always call for a certain kind of electricity, and, if benefit is to follow, it must come through this special form, all others being useless, or worse than useless. Let me specify one of the most familiar illustrations of this. In hemiplegia, where there exists, as is so often the case, an exalted electro-muscular contractility, electricity, if used at all, should be used in the form of faradization, and with an exceedingly mild and rapidly interrupted current. Under this treatment, improvement in the symptoms is not unfrequently accelerated, the paralyzed members becoming stronger, and the muscular contractions less readily produced.

Even when muscular contractions are *somewhat less* readily called out than in the normal condition, the same current is as a rule preferable.

On the contrary, when there is a very great diminution of electro-muscular contractility, the galvanic current is always indicated, the faradic coming into play only when the muscles give evidence of positive reaction to its influence. In most cases of paraplegia we generally find, after a short time, complete or approximate loss of farado-muscular contractility. The galvanic current is alone applicable in these cases, for the specific purpose of restoring nerve excitability, although the faradic may be useful in attempts to improve the impaired nutrition of the paralyzed members.

The difference in the reaction of the two currents is illustrated in an interesting manner in some cases of facial paralysis, and especially when it results from the action of cold (*rheumatismal*).

In these cases the faradic current does not cause contractions, while not only do the muscles respond to the galvanic, but a much weaker current will answer than when the parts are normal.

As the patient improves it takes an increased tension of galvanism to cause the same effects, until finally farado-muscular contractility becomes manifest.

Without specifying distinct pathological conditions, physical and physiological reasons render it evident that when we wish to directly affect the central nervous system the constant current is alone applicable. In the consideration of disease in general, however, the form of electricity to be used will depend very much upon the special manifestation of the symptoms and individual idiosyncrasies.

I may say that, in the majority of diseases where electricity is indicated, each one of its three forms—galvanism, faradism, and franklinism—may, at one time or another, possess a positive value over the others. This is illustrated in the condition that we term neuralgia. The well-known

power of the galvanic current to relieve many forms of pain has been repeatedly emphasized, while the efficacy of the faradic current in the same direction is seldom referred to; hence, the inference naturally is, that the latter for this purpose is of but little value. The truth is that faradism is not only invaluable in many forms of pain, but in certain conditions relieves, where galvanism is not only useless, but may even aggravate the symptoms. More specifically, the effects of pressure in the various forms of neuralgia are exceedingly useful as guiding symptoms, indicating the proper current.

I do not by any means lay it down as a universal law, but it will certainly be found that in the great majority of cases of neuralgia, where firm pressure over the affected nerves aggravates the pain, the galvanic current is indicated, while the faradic current has the greater power to relieve, when such pressure does not cause an increase of pain. In the class of cases called, sometimes, hysterical hyperæsthesia, it is well known that firm and prolonged pressure affords marked relief, while pressure superficially applied increases the distress. The faradic current is here infinitely superior to the galvanic.

It would, therefore, be untrue to say that galvanism is indicated for the relief of neuralgia, and that faradism is not. The measure of benefit to be obtained from one form or another depends upon the special characteristics of the case in hand. And yet, if it is impossible to point out many diseases where one current is to be used to the absolute exclusion of the other, it is possible to name a variety of conditions where, as a rule, one method of treatment, and one form of current, is superior to another.

In that class of cases that we sometimes speak of as general debility, if I may be allowed to use such a very vague specification, the faradic current is generally indicated. We select it because of its undoubted constitutional tonic effects. These tonic effects must come, in a measure at least, through the mechanical influences which agitate the superficial, and even the deeper seated nerve and muscular fiber.

The rapidly interrupted galvanic current possesses mechanical effects as great as, or even greater than, the faradic, but the difficulty with the former in using it for this purpose is, that the tension of the current must necessarily be so great as to produce reflex and direct effects, that might be in the highest degree damaging.

In order, however, to obtain satisfactory tonic effects from the use of faradization, very much depends upon the method of its application. It is essentially a method of detail. The method of general faradization,* to which I refer, where the whole body is brought thoroughly and completely under the influence of the faradic current, is in its relation to electro-therapeutics of the first importance.

It is many years since we described this method, and first enunciated the idea that electricity was not merely a stimulant and irritant, but a powerful tonic as well. This

* In my third revised edition of Beard and Rockwell's "Medical and Surgical Electricity," chapter x, the *modus operandi*, *rationale*, and effects of general faradization are fully described. William Wood & Co., publishers.

theory excited at first not a little attention both at home and abroad, and especially in Germany, where it is still used with excellent effect by those who have become adequately skilled in its application. Nevertheless, it is even yet almost entirely ignored in this country in the writings and lectures of our prominent medical teachers.

The evidences, however, of carefully elaborated individual experiences have greatly multiplied during the past decade, and furnish abundant evidence of the correctness of this theory. Unfortunately, very few have undertaken to write upon this subject, and these individual experiences, so rich in results, and so important as evidences, are practically lost.

Concerning individual conditions that seem to demand the faradic current alone, there is not much to be said. There are in various generic diseases, if I may so speak, special symptoms that invariably demand one or the other of the two forms of dynamic electricity, and even special qualities of the same current. I have already alluded to this point in speaking of paralysis. But there are few distinct organic or functional diseases that in every phase of their manifestation demand alone and always a special form of electricity.

Asthenopia, a symptom depending on an absolute or relative deficiency of energy in the muscles of accommodation, and accompanied by hyperæsthesia of the retina and ciliary nerves, is one of the few distinct conditions that seem to demand the faradic current alone. I will not say that galvanism is never servicable, but my experience at least seems to teach that instances where faradism is not immeasurably superior to galvanism are so exceptional as practically to exclude the latter from consideration. The paralysis following diphtheria is another condition for which galvanism is of but little service, but where the proper use of faradization is often quite remarkable in its effects.

I have had in the various sequelæ of diphtheria an exceptional experience, which enables me to say that while the larger proportion of cases tend naturally toward recovery, yet the duration and force of the paralysis are greatly shortened and broken by electrical treatment. On the other hand, there are cases so obstinate in character that nature seems unequal to the task of relieving.

Some months ago I was called to West Milford, New Jersey, by Dr. Archer, of that place, to see with him the most severe and persistent case of diphtheritic paralysis that I had ever seen. The patient was a young married lady, aged twenty-five, and for three months the paralysis had persisted without abatement.

It was with difficulty that she could either swallow or speak; all four extremities were almost completely helpless, and associated with this were ptosis of the left eye and double vision. The patient improved immediately under faradization, and within three weeks was able to leave her bed.

In a case sent to me by Dr. J. D. Bryant, and now under treatment, where the pharyngeal muscles were badly paralyzed, six applications have restored approximately the lost power.

Among those diseases for which galvanism is, as a rule,

more servicable than faradism, there are a few where it is almost exclusively indicated. The so-called spinal irritation or spinal neuralgia is one of these. Under simple galvanization of the spine, aided sometimes by the tonic influence of general faradization, the tenderness to pressure over certain well-defined areas uniformly disappears.

Especially is galvanism of inestimable service in certain sequelæ of cerebro-spinal meningitis.

Following this terrible disease is a collection of the most distressing and persistent symptoms, which are yet perfectly curable. Some of the main symptoms consist of the severest pain, sometimes beginning in the eyes, and extending over the head to the neck and lower cervical vertebræ. Associated with this is a distressing stiffness of the muscles of the neck, with a constant drawing of the head backward. Occasionally no posture is endurable, excepting when the head is thrown far back, and in some of the worst cases I have known these muscular contractions to become convulsive. That unpromising and mysterious disease known as exophthalmic goitre is often much relieved and sometimes cured by electrical applications, but uniformly through the use of galvanism. The process of general faradization, through its powerful tonic effects, I have known to materially aid in the recovery, but galvanization must ever be the main reliance.

For the restoration of the lost senses of taste and smell, galvanism succeeds where faradism fails.

I may mention, also, that in most of those skin affections in which electricity has been shown to be of service, the galvanic current is vastly superior to the faradic.

In the pain of herpes zoster especially, galvanism is eminently efficacious, while in the field of electro-surgery it is supreme. In the treatment of erectile tumors especially, for which it is a specific, galvanism is used exclusively.

Some of you may not be aware of the remarkable results following the use of electricity in extra-uterine pregnancy. Both currents have been used successfully, but, to cause the speedy death of the fœtus, my experience leads me greatly to prefer galvanism. Chorea, both acute and chronic, is a disease for which electricity is especially indicated. Both forms of dynamic (and even franklinic) electricity are of value, and, in any individual case, it is impossible, without careful examination, and sometimes tentative treatment, to differentiate between the two. In a case of this kind, and we frequently see such, where the appetite is good and even voracious, the nutrition unimpaired and the strength vigorous, the galvanic current, by the method of central galvanization, is almost invariably indicated; if, on the contrary, the patient is weak and anæmic, with nutrition generally impaired, thorough treatment by general faradization is always in order. In amenorrhœa the same principle generally holds good. If the patient is chlorotic and weak, faradization is the proper method, while the interrupted galvanic current, or the shock of franklinic electricity, is more frequently indicated when the suppression or retention are due to local rather than to constitutional causes.

The record, also, of electricity in dysmenorrhœa is brilliant. Both currents, either alone or in alternation, have proved efficacious, although the galvanic is most frequently

indicated. From franklinic electricity tonic and sedative effects of a very interesting and positive nature can be obtained, either by insulation by sparks or the use of the roller. Speaking from a considerable experience with this form of electricity, I should say that, while its constitutional tonic effects are unequal to those that follow general faradization, when this method is carried out properly, with due attention to detail, yet, as an adjunct or supplement, it is invaluable. It is one of the familiar things in medicine that a remedy which at first acts well may, after a time, prove inefficacious, rendering it necessary to resort to some other remedy of the same class. This is true in regard to the dynamic and static forms of electricity. Occasionally cases of nervous exhaustion, as well as other forms of disease, after improving to a certain point, under the influence of galvanism or faradism, hang fire, as it were, but by submitting the patient to the action of franklinization a new impulse seems to be given. In this way, one treatment supplementing and re-enforcing the others, results are obtained far more satisfactory than could possibly follow the exclusive use of general or localized faradization, central galvanization, or franklinization. Pain is sometimes relieved by franklinization after both galvanism and faradism have failed, but this is not the rule. The pain of muscular rheumatism, however, is relieved by this method sooner and more effectually than by the others. For this purpose, the treatment by the roller, which exercises a generally stimulating effect over a broad surface, is superior to the treatment by sparks.

In the various forms of true neuralgia, franklinism is not comparable in power to galvanism. The pain that the former is frequently so successful in subduing is generally of a chronic character, confined to no special nerve trunks, dull and aching in character, and with no tenderness on pressure. In these cases, I have long known that faradism was superior to galvanism, but more recent experience has convinced me that franklinization is more efficacious than either. In the enlarged joints of sub-acute and chronic rheumatism, and to excite the process of absorption in chronic synovitis, the treatment by sparks is frequently more efficacious than either faradization or galvanization. In old contractions, and in cutaneous anæsthesia, franklinization frequently possesses advantages over the others.

In electro-diagnosis, however, franklinic electricity is of but limited value, those qualitative and quantitative changes, which are so important as indicating structural degeneration, being satisfactorily indicated only through the action of the two forms of dynamic electricity.

Valuable as is franklinic electricity, it has a more limited range of usefulness than dynamic, and the more strongly this fact is impressed on the professional mind the better. He who begins with franklinism the study and practice of medical electricity, begins at the wrong end. Let him first master dynamic electricity, and then supplement his knowledge and experience in this direction by franklinism. The differential indications, then, for the use of galvanism, faradism, and franklinism, may well demand the closest scrutiny, for on the accuracy with which we estimate these indications will largely depend the success of our efforts. If

we do not clearly appreciate the difference in action and adaptation to symptoms of the different forms, we either fail to obtain results that are obtainable, or valuable time is lost in the change of treatment.

NASAL DIPHTHERIA.

By THOMAS AMORY DE BLOIS, M. D., BOSTON,

LARYNGOLOGIST TO THE BOSTON DISPENSARY.

THE modes of invasion of diphtheria are so various, and the modifications of the disease so manifold, that, as Dr. Mackenzie remarks, "a diagnosis may be almost a matter of impossibility in those cases which differ from the normal type, in the direction either of unusual mildness or unusual severity."

However frequently this error in diagnosis may occur, where the disease first shows itself in the pharynx, when it invades the nasal passages, its recognition must certainly be much more difficult, for, although it is an easy matter to make a rhinoscopic examination in health, in disease such an exploration is many times next to impossible.

That there are often cases of nasal diphtheria which pass unnoticed must occur to any one who has witnessed the many ulcerations of the nasal mucous membrane of children occurring during the winter months, and which can not be accounted for on the score of either syphilis or catarrh.

By nasal diphtheria I do not wish to imply the spread of the diphtheritic membrane from the fauces to the nasal passages, an extension, as it were, of a process already existing, but a disease which makes the first manifestation of its presence in the nose, either posteriorly or anteriorly.

This affection ordinarily takes the form of catarrhal diphtheria, and in mild cases attracts but little attention except from the length of time that the trouble persists, and which is usually supposed by the parents to be a "bad cold."

The cases which ordinarily come under the notice of the physician, and those which attend our dispensary clinics, are the ones in which either the membrane presents itself to view at the anterior nares, or, after confining itself for some time to the nasal passages, subsequently invades the pharynx, larynx, and trachea, and there distinguishes itself from the ordinary sequence of diphtheritic cases by the severity of its course—as if, from the length of time that the poison had, unnoticed and unchecked, been retained in the system, that system had become the more thoroughly saturated by the infection which had advanced thus insidiously.

The patient—and it is usually a child, for children are generally the victims of this variety of diphtheria—shows very few of the prodromal symptoms of the disease. There is little or no malaise, and even with the appearance of the membrane there is only a very slight rise in temperature, the glands of the neck are not enlarged, and little soreness of the fauces is manifest; if any, only the slight erythema accompanying the ordinary catarrhal sore throat.

The first indication is a snuffling at the nose, followed by a slight watery discharge, which generally becomes purulent and often sanguineous, besides which it is frequently exceedingly offensive by its fetor.

On inspection, the nares present a reddened appearance,

studded with spots of peculiarly white deposit, which are as intimately adherent to the mucous surface as the membrane found in other varieties of the disease; these spots gradually coalesce, and the patches progress until they reach the border of the skin, where they appear to become arrested by the denser tissue, and have the appearance of a complete investment of the nasal passages, bounded by a bright red line of demarkation and covered usually by a thin watery discharge. This membrane generally covers the entire posterior nares as well as what is in view anteriorly, although, from the difficulty of examination, it may escape recognition.

Besides these nasal and pharyngeal symptoms, there frequently supervenes a severe laryngeal affection, characterized by general difficulty of breathing and frequent attacks of severe dyspnoea, which appear to be a laryngismus, for the larynx is always quite free from membrane, and the obstruction would appear to be from a spasm of the glottis.

In a large majority of nasal diphtheria cases, within a few days the disease will begin to retrograde, and the patient may get better without the deposit appearing at any other point, under which circumstances, after a day or so, it becomes loosened from one nostril and then from the other, and in the course of a week or ten days the patient is completely restored to health. Secondly, the disease may take on almost a chronic form, and the membrane remain adherent to the nostrils for many weeks without causing much inconvenience to the patient. Finally, in a few other cases, as has before been stated, the disease will pass downward, and the patient finally succumb to the later effects of what seemed at first to be a comparatively mild form of diphtheria.

As regards the sequelæ of this form of diphtheria, we miss that occasionally found with other forms of the disease—laryngeal paralysis. It never follows, and usually, if we do not include some slight ulcerations of the anterior nares, there are no unpleasant after-effects of the malady, with the exception of paralysis of the velum palati, which occasionally supervenes as in other forms. I have never seen a case of this, but Dr. Carl Seiler, of Philadelphia, states that out of several cases of nasal diphtheria seen by him, and which all terminated favorably, two subsequently had paralysis of the soft palate.

CASE I.—Edward H., aged five years, a patient of the Boston Dispensary, appeared with his mother in September, 1882. The mother stated that she believed the child to be perfectly well, with the exception of a persistent cold in the head, which she stated had lasted for about two weeks, the little one playing about the house and seeming as well as usual. The patient appeared to be a healthy, well-grown child, for his age; seemed in good spirits; no exacerbation of temperature or pulse. On examination of the nose, at both orifices appeared a dense white membrane which reached as far as the skin of the nose, from which it was separated by a fine red line. This membrane was somewhat raised above the surrounding surface, and was covered by a thin, white, watery mucus, rusty at some points, which trickled down on the lip, where it appeared to be the cause of numerous excoriations. The fetor of the child's breath was much greater than the amount of diseased surface would seem to account for.

Upon introducing a speculum, the membrane appeared to extend posteriorly as far as could be seen, and to completely invest both nostrils. Posteriorly, it was much the same; the vault of the pharynx and turbinated bones were almost covered with the membrane. Upon trying to detach a portion of this membrane in the anterior nares, a raw, bleeding surface was left, and it was impossible with the cotton stick to sweep away any portion of it.

There was no membrane in either the larynx or pharynx. It was difficult to make the mother of this little patient comprehend the gravity of the case, for, as she said, the child seemed perfectly well.

In regard to the treatment, the nostrils were sprayed out with a carbolized solution, after which iodoform was insufflated, and a stimulating and tonic medication ordered.

The case now passed into the hands of the attendant physician, who stated that he saw the patient next day, at which time the membrane had spread to the pharynx as far as he could see without the glass. The next morning breathing was impeded, and he advised tracheotomy, which was refused, and the little one died that afternoon, about forty-eight hours after the first examination.

CASE II.—Charles M., aged four years, a well-nourished child, who had always been well—in fact, this was the first instance of his having been under a physician's care—was taken sick about November 1st, the first symptom noticed by the parents being a very offensive puro-sanguinolent discharge from the anterior nares. On examination, there appeared a membrane in both nostrils, the edges of which were clearly defined, as they extended well to the front, and were terminated by a bright red line of demarkation. There was no fever. The pulse was soft and compressible. There was great loss of appetite and some loss of flesh. Although the child played about the house as usual during the day, yet at night he would be awakened by attacks of dyspnoea, which persisted until a hot, moist sponge had been held over his mouth for a short while, when the dyspnoea would disappear and he would fall asleep again.

In about three weeks and a half the membrane lining the right nostril became partially detached, though it was firmly adherent anteriorly, and could be heard flapping in the air-passage. Shortly after this it came away, the pus and blood stopped flowing, and that nostril became perfectly clear. In about a week more the second nostril cleared itself in the same way, and the disease terminated, without sequelæ, in about five weeks from its commencement. The treatment in this case consisted in washing out the nares frequently with a two-and-a-half-per-cent. solution of the sulpho-carbolate of zinc, the insufflation of iodoform, and the internal administration of brandy, milk, and beef-juice at short intervals.

CASE III.—This was the case of an adult, a wool-sorter by trade, by name John H., and aged forty years. He came under observation on the 23d of last March, and gave the following history: Two days before, in the afternoon, he was seized with a slight indisposition, and at the same time noticed that his neck appeared to be stiff, and that it pained him to swallow his saliva. However, he went on with his work, believing that he had a cold and that it would pass off.

It did not, however, and on the following day he noticed that he had great difficulty in breathing through his nose; but it was the pain in the neck which gave him most distress, and caused him to send for a physician.

When seen, he appeared to be a strong, robust man, evidently in good general health. On examination, there appeared a continuous lining of diphtheritic membrane, extending from the orifices of the nostrils as far back as could be seen, and it was extremely dense and thick. Posteriorly, it did not extend farther than the vault of the pharynx. There was no membrane in either the pharynx or larynx. This continuous lining was bathed in a thin, watery discharge, and the fetor was simply intolerable. There was no interference with respiration; the febrile symptoms were very slight. The neck was a good deal swollen, and appeared to cause him a great deal of pain. The patient was seen again that same evening. He certainly was much worse; the malaise had increased, and he was evidently in a very low state. On the following morning he began to sink rapidly, and died that evening, presumably from blood poisoning, thirty-six hours after first being seen.

Dr. S. W. Langmaid, of Boston, reported in the "Boston Medical and Surgical Journal" (vol. civ, No. 12) the following case: The case of a lady whom he was called to see, with symptoms of swelling and some pain in the throat, but no fever. On examination, he found a white membrane hanging down behind the soft palate, and, on using the mirror, he discovered that the whole surface of the right posterior nasal fossa was covered with a membrane which could not be detached by traction, and could not have been discovered without rhinoscopic examination, as it was localized there, not being present elsewhere. Simple syringing with permanganate of potash was employed, and the whole thing disappeared in three days. He supposed it was a diphtheritic membrane.

These few cases here cited are sufficient to show, at least, the diversity of the disease, for no two of them are alike. They vary from an attack which almost escapes detection by its mildness to one which overwhelms by its severity in the short space of three days. They are only similar in the fact that in all of them the disease was principally located in the nose before having appeared in any other situation.

While this peculiarity of location is not sufficient to call for a separate classification, yet the number of cases reported is so small, and they are so sparingly touched upon in works on diseases of the throat, that the subject must be one of interest to many.

One point, at least, most writers on the subject agree upon, and that is, that when the membrane involves the nasal passages it greatly increases the gravity of the disease. There are some cases that are very light in their character, and doubtless many others which escape notice altogether.

5 PARK SQUARE, BOSTON, *January 5, 1883.*

THE NEW YORK SOCIETY OF MEDICAL JURISPRUDENCE.—A society has recently been organized under this name, and the following officers have been chosen: President, Mr. George P. Avery; Vice-President, Dr. J. S. Wight; Secretary, Dr. N. E. Brill; Financial Secretary, Dr. S. B. Livingstone; Corresponding Secretary, Dr. J. F. Chauveau; Treasurer, Dr. E. C. Harwood.

A CASE OF CAUSALGIA.

By CHARLES T. POORE, M. D.,

SURGEON TO ST. MARY'S FREE HOSPITAL FOR CHILDREN.

In April, 1882, I was asked to see Mrs. X. for a painful affection of the foot, following a fracture of the lower ends of the bones of the leg. The history of the case was as follows: In August previous, while standing on some steps, she fell, turning her right foot inward, causing, it was said, a fracture of the end of the tibia and a laceration of the external ligaments of the ankle joint. The parts about the joint immediately became greatly swollen and very painful. The limb was put up in a plaster-of-Paris bandage. After four weeks it was removed, and she was told to use the foot as much as she was able. Some weeks later she began to experience an uncomfortable burning sensation in the sole of the foot after walking, which gradually increased in severity until it assumed a very painful character. At the time of my visit she describes the pain as follows: After walking a short distance, or letting her foot hang down with a boot on, the sole of the foot, at a point corresponding to the metatarso-phalangeal joints and a little behind them, began to burn, soon the skin became very sensitive, red, swollen, and the pain excruciating, so that she had to remove her boot; she had noticed that at times the skin had a glazed appearance. During the paroxysm the pain extended up on to the side of the foot, and then to the leg. When the pain was intense, she obtained relief by placing the foot in as hot water as could be borne. She had no pain when the foot was raised, even if she had a boot on. After an attack, the pain gradually diminished, and in an hour or so it disappeared. She had worn an ankle brace, but without deriving any benefit from it. There had never been any eruption on the sole of the foot.

On examination, the muscles on the posterior aspect of the leg are slightly shortened, so that the foot can not be flexed beyond a right angle with the leg without the use of considerable force. The leg is slightly œdematous. There is no pain on passive motion; the soft tissues over the right ankle joint are swollen. On the outer aspect of the foot, just anterior and below the end of the fibula, is a swelling, feeling like an enlarged bursa. On deep pressure in this location, there is some tenderness. The posterior tibial nerve behind the ankle joint seems slightly tender on pressure, but the examination does not give rise to any painful sensation on the sole of the foot. There is no pain or tenderness in the metatarso-phalangeal joints, in the bones of the foot, nor in the soft parts at the time of examination, which was not during a paroxysm. There is some complaint at times of aching on the external border of the foot. The tarsal arch is somewhat flattened. The affected area corresponded to the parts under the metatarso-phalangeal joints of the second, third, fourth, and fifth toes.

At the request of the patient, a trial of electricity was made; but, after a month's treatment, there was no diminution in the amount of pain nor length of the paroxysms. It seemed to me that nothing short of blistering or superficial cauterization would be of any benefit. I therefore asked that Dr. J. C. Hutchison, of Brooklyn, should see the

case with me, which he did on the 17th of May. He agreed as to the diagnosis, and the advisability of using the cautery to the sole of the foot. A Paquelin's cautery raised to a white heat was applied to the painful point. The patient complained of but slight pain from the application, and was out in the afternoon. From this date until the 1st of June I cauterized the foot five times, with the result of an almost entire relief from pain. As she went out of town at this date, treatment ceased. She is now free from all trouble, and goes about as well as ever.

Remarks.—The main points in this case are: an injury to the ankle joint, from which there was a perfect recovery, as far as the bone lesion was concerned; a probable injury to the posterior tibial nerve, followed by a peculiar affection of some of its terminal ends of many months' duration; permanent relief after superficial cauterization, with a Paquelin's cautery applied five times, at an interval of about three days. The only account of this affection that I am aware of is in Mitchell, "On Injuries of Nerves" (Philadelphia, 1872), in which he states "that irritation of a nerve at the point of wound (injury) may give rise to changes in the circulation and nutrition of parts in its distribution, and that these alterations may of themselves be of a painful nature." "If the burning were a referred sensation, it would sometimes be met with in cases of complete division of nerves, and, therefore, in parts devoid of tactile sensation. But we have encountered no such case. . . . The agents which help these cases of burning are those addressed to the spot where the pain is felt, and *not* to the cicatrix."

The use of tincture of iodine applied over the ankle joint had failed to afford any relief. Cauterization at no time caused any abrasion of the skin covering the sole of the foot, nor was she prevented from walking. I found that, on account of the thickness of the skin on the sole of the foot, I had to pass the cautery more slowly than is usual in superficial cauterization of other parts.

Clinical Reports.

MOUNT SINAI HOSPITAL.

(Service of Dr. HENRY N. HEINEMAN.)

PERITYPHLITIC ABSCESS.

THIS patient was about thirty-five years of age. He was a hard drinker, and had had morning sickness for some time, and one or two attacks of jaundice. For two weeks previous to his admission to the hospital he had had irregular chilly sensations and febrile movement, and had been a part of the time in bed. He suffered from constipation and diarrhoea alternately.

On admission, the patient's temperature was 104° F. He complained of marked pain in the right lumbar and iliac regions and over the abdomen. There were swelling, dullness on percussion, and localized pain over the right iliac fossa. The diagnosis of perityphlitis was made.

His temperature reached 103.5° for many days. After the administration of antipyretics, it was reduced to 100.5°, at which it remained for some time. Thirty grains (2.00) of quinine sulphate were given once or twice a day, and six minims (0.40) of

Magendie's solution injected thrice daily under the skin. Ice bags were applied locally, and the patient's strength was sustained with whisky.

Within a week after admission, well-marked signs of exudation about the cæcum were recognized, though no redness or œdema of the integument appeared. There were no signs of the pointing of an abscess.

Gradually the swelling decreased, the local tenderness diminished, tympanitic resonance was heard all over the cæcum, and finally only a slight fullness in the lumbar region posteriorly remained. The temperature had become normal, but the patient still seemed far from convalescence.

During the ninth week of his illness the evening temperature began to rise, and was uninfluenced by antipyretics. The patient became somewhat delirious. No satisfactory explanation could be found. In the tenth week the delirium continued, the pulse grew feeble, and the fever rose to 103.5°. One morning he passed a chocolate-colored stool. The same afternoon his temperature rose to 104.8°, then to 106.2°, and he died in collapse—it was supposed either from perforation or from intestinal hæmorrhage.

An autopsy was held the next day. A large pus-cavity was found behind the cæcum, extending in a downward direction principally, as far as the ilio-pectineal line, infiltrating the iliacus muscle, and almost baring the ilium itself. Sinuses led upward behind the right kidney. The cavity was filled with a mixture of pus and recently effused blood, the latter about three fourths of a pint (thirty-five centilitres) in quantity. The large intestine also contained clotted blood. A perforation at the seat of an extensive ulcer just behind the Bauhinian valve communicated with the abscess cavity, and was the cause of the hæmorrhage.

RECTAL FEEDING.

Two patients have been sustained for three weeks by food given by enema. The rectum was first syringed and washed out with warm water. The following mixture was then injected: Milk, $\frac{3}{4}$ iv (128.00); whisky, $\frac{3}{4}$ ss. (16.00); pep-in, gr. xv (1.00); tr. opii, $\frac{1}{4}$ v (6.33), to be repeated after two hours.

The rectum was generally cleansed before each injection of aliment, though sometimes the patient retained two or three injections without a repetition of the irrigation.

RHEUMATIC PERICARDITIS.

A man, twenty-one years of age, was admitted November 20, 1882.

Previous History.—During the last two or three years this man has had occasional palpitation of the heart, but it has not inconvenienced him to any extent. A year ago last summer he lay in the open air, caught cold, and had rheumatism for a week. After this he experienced severer palpitation than before, and had some shortness of breath on exertion. Otherwise he was quite well, and could work hard without tiring.

A month ago he began to complain of pain in the back. Being a porter at the time, he laid it to overwork. He also had a severe naso-pharyngeal catarrh, with frontal headache, blood-stained expectoration, and epistaxis. He had pain in the precordia and left shoulder, fever, and general sweating. The joints were not affected. He received medical aid, and in two weeks felt comparatively well. About a week ago he had a slight chill, followed by fever and profuse perspiration. From this date he grew worse. The pain in the back and limbs and general stiffness returned, and the sharp pains in the chest. His inspirations were shallow and frequent.

On Admission, November 20, 1882.—The patient complains greatly of weakness; his appetite is poor; his tongue very much coated with a white fur; his bowels are constipated; his tempera-

ture is 101.3° , respiration 24, pulse 112, short, but rather full. His face wears an anxious expression, but is not cyanotic.

Physical Examination.—A peculiar "wavy impulse" at and above the apex of the heart can be seen and felt in the chest-wall. The precordial flatness is of about twice the normal measurements, but does not extend to the right of the sternum. There is a very loud friction-sound synchronous with the first sound of the heart, and a short diastolic friction-sound. These sounds are best heard around the point at which the apex beats, and stop short at the left limit of the pericardium. A soft murmur is audible to the left of this and at the left side of the spine, with the systole. The cardiac impulse is very forcible, and the heart is probably hypertrophied.

The other organs give negative signs.

November 23d.—10 A. M., pulse 132, respiration 44, temperature 102° ; 7 P. M., pulse 130, respiration 46, temperature 103° .

November 25th.—8 A. M., pulse 112, respiration 32, temperature 99.4° ; 7 P. M., pulse 130, respiration 44, temperature 100.6° . A double friction-sound can be heard by applying the ear to the chest at the left side of the sternum. The ear serves better than the stethoscope. A thrill is felt at this point with the systole. The friction-sound is not so distinct at the apex as before. The area of flatness is in the form of a triangle, with the base downward, and extends from the second to the fifth interspace, and from the middle of the sternum one inch beyond the nipple.

November 28th.—8 A. M., pulse 84, respiration 36, temperature 99.2° ; 5 P. M., pulse 100, respiration 32, temperature 100° . The patient feels very well, though still lying down. The circulation is good. He has some pain in the precordia. That at the apex is gone.

November 30th.—8 A. M., pulse 104, respiration 32, temperature 100.2° ; 7 P. M., pulse 110, respiration 52, temperature 101.5° . More fever.

December 3d.—8 A. M., pulse 108, respiration 36, temperature 100° ; 4 P. M., pulse 120, respiration 40, temperature 101.2° .

December 6th.—8 A. M., pulse 112*, respiration 48, temperature 100.8° ; 4.30 P. M., pulse 104, respiration 24, temperature 99.6° .

January 9, 1883.—For a month the patient has been gaining ground pretty steadily. He sits up every day, and is doing well.

Treatment.—The patient has received, from his entrance into the hospital, infusion of digitalis, $\frac{3}{4}$ ss. (16.00), with tincture of opium, $\mathfrak{M}$ xx (1.33), every three or four hours. His strength has been kept up by whisky, $f \frac{3}{4}$ viij (25 centilitres) in twenty-four hours. Lately one half of this has been replaced by wine. During the exacerbation, about the 1st of December, he was given quin. sulph., gr. xx (1.33), twice a day. His dyspnoea has been relieved by inhalations of oxygen, three, two, and one a day. He is now taking wine, whisky, digitalis, and a little lactate of iron.

Book Notices.

The Physician Himself, and What he should Add to the Strictly Scientific. By D. W. CATHELL, M. D., late Professor of Pathology in the College of Physicians and Surgeons of Baltimore, etc. Baltimore: Cushings & Bailey, 1882. Pp. 194.

This book contains a curious medley of matter. Together with some bits of real information, such as it would be a task to collect from formal treatises, it gives a good deal of matter

that is not one whit higher than that of such trash as "How to Behave," "The Manners of Good Society," "The Complete Letter-Writer," etc. It is written in a style somewhat Tupperian.

The Spinal Nerves. By A. H. P. LEUF, M. D. Brooklyn: F. B. O'Connor, Jr. Pamphlet and folding plates. [Price, \$1.]

THIS pamphlet, with the number of loose sheets which accompany it, has caused the reviewer some surprise. Not that the tables printed upon the separate sheets are incorrect, or that the body of the pamphlet is inaccurate, although the latter is superficial and often disfigured by the use of capitals in the text; but because, while the author's copyright is prominently and repeatedly set forth, we find it to differ only in minor matters from other works already well known. We are particularly reminded of Flower's "Diagrams of the Nerves," and of certain of the tables given in Darling and Ranney's "Essentials of Anatomy."

BOOKS AND PAMPHLETS RECEIVED.

A Text-Book of the Diseases of the Ear and Adjacent Organs. By Dr. Adam Politzer, Imperial-Royal Professor of Aural Therapeutics in the University of Vienna, etc. Translated and Edited by James Patterson Cassells, M. D., M. R. C. S. Eng., Aural Surgeon to, and Lecturer on Aural Surgery at, the Glasgow Hospital and Dispensary for Diseases of the Ear. With 257 original illustrations. Philadelphia: Henry C. Lea's Son & Co., 1883. Pp. xii-800.

Legal Medicine. By Charles Meymott Tidy, M. B., F. C. S., Master of Surgery; Professor of Chemistry and of Forensic Medicine and Public Health at the London Hospital, etc. New York: William Wood & Co. Two vols. Pp. xxi-314; xi-298. [Wood's Library of Standard Medical Authors.]

On Slight Ailments: their Nature and Treatment. By Lionel S. Beale, M. B., F. R. S., F. R. C. P., Professor of the Principles and Practice of Medicine in King's College, London, etc. Second edition, enlarged and illustrated. Philadelphia: P. Blakiston, Son & Co., 1882. Pp. 283.

A Guide to the Practical Examination of Urine. For the use of Students and Physicians. By James Tyson, M. D., Professor of General Pathology and Morbid Anatomy in the University of Pennsylvania. Fourth edition, revised and corrected. With colored plates and wood engravings. Philadelphia: P. Blakiston, Son & Co., 1883. Pp. 196.

The Harveian Oration, 1880. Delivered June 25th. By John W. Ogle, M. A., M. D. Oxon., F. R. C. P., Consulting Physician to St. George's Hospital. With additional notes and an appendix. London, 1881. Pp. 209.

Electricity in Medicine and Surgery. By George C. Pitzer, M. D., Professor of the Theory and Practice of Medicine in the American Medical College of St. Louis. St. Louis, 1883. Pp. 83. [Price, \$1.]

The Laws of Life, and their Relation to Diseases of the Skin. By J. L. Milton, Senior Surgeon to, and Lecturer at, St. John's Hospital for Diseases of the Skin. London: Chatto & Windus, 1882. Pp. 154. [Price, 1s.]

The Law of Human Increase. By Nathan Allen, M. D., LL. D. Pp. 10. [Reprint from the "Popular Science Monthly."]

Contributions from the Chemical Laboratory of the University of Michigan. Edited by Albert B. Prescott, M. D., F. C. S., and Victor C. Vaughan, M. D., Ph. D. Vol. I, part 1. Pp. 55. [Reprint from the "Physician and Surgeon." Price, 50 cents.]

Massage: its Mode of Application and its Effects. By Dr. Douglas Graham, Boston. Pp. 721 to 737, inclusive. [Reprint from the "Popular Science Monthly."]

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THE PROBLEM AT ALBANY.

DURING the coming week the Medical Society of the State of New York will be called upon to take action with regard to a matter that has become of the greatest importance—not so much intrinsically as by reason of the side issues with which it has been entangled. We refer to the question of the code of ethics.

There are many in the profession who do not think it necessary that we should have any code at all. This journal is of that opinion, and, consequently, it expressed a qualified approval of the new code on its adoption, a year ago, for that code seemed a step toward the abolition of all codes, inasmuch as it nullified the most important element in the code of the American Medical Association, and, therefore, came as near being no code at all as could well be expected of a body that had just declined to commit itself to the no-code policy. That was our sole reason for approving of the new code, and we know of no reason to doubt that it was the feeling that actuated the promoters of the measure, notwithstanding the insinuations that have been published as to motives of self-interest on the part of that section of the profession.

Since the new code was adopted, it has been made the subject of comment by almost every medical journal, and by almost every public medical society in the country, and these comments, being almost invariably denunciatory of the action of our State society, have given abundant evidence that the greater part of the profession not only disapprove of that action, but feel outraged by it. This feeling is deep and genuine, and calls for the most deferential consideration, whatever we may think of the way in which it has been expressed. We therefore trust that at the coming meeting of the State society those who take part in the proceedings will sink any sense they may entertain of having been unworthily dealt with in the discussions to which we have alluded, and take up the problem before them with a firm determination to get at the real interest of the profession in general, and to work in favor of whatever settlement of the question may seem, after the fullest possible deliberation, best calculated to uphold that interest.

It will be no easy matter, we admit, for those who represent this city to lose sight of the indignities to which they have been subjected. They will find it difficult not to swerve under the galling and most unjustifiable imputation that they took the course they did a year ago because of a sordid longing for the means of enriching themselves by fees for consultations with practitioners of other schools than their own; under the palpable lie that they sprung the measure upon a small meeting, and carried it through to adoption by unbecoming tactics; under

the slanderous statement that they even go to this meeting pledged against any recession from their former position. Hard as it will be, however, to lay aside that bias that springs so readily from indignation and a sense of having been wronged, it must be done, and we do not doubt that it will be done. We do not doubt, and we earnestly hope, that those who question the wisdom of the old code will not only accord all due consideration to the sentiment evidently entertained by a large portion of the profession, but also yield something of their own convictions to the policy of conciliation and harmony, leaving the future to deal with the matter from the point of view of any change that may hereafter come over the feelings of the profession at large in regard to it.

While we believe that considerations like the foregoing will prevail, and while we urge that they should prevail, we deem it no more than just that those who have heretofore supported the new code should be set right before their fellows as regards their real motives. It is utterly absurd to say that they desire consultations with homœopathists, for instance. The incongruity of such consultations, if we use the term with any approach to its strict meaning, is obvious to all thinking men. The homœopathists themselves see it, if we may judge from the general tone of their journals; indeed, they have joined in the senseless cry that New York specialists are bidding for their practice, and declare that they will have nothing to do with us. As a matter of fact, the permissive clause has been in operation for a year, and yet we are unaware that a single consultation has been held under it that would not have been held without it. No, the accusation that any such sinister motive underlay the movement that ended in the adoption of the present code is as baseless as it is insolent. What the upholders of that code really did aim at was, so far as we are able to judge, to free the medical profession from the burden of a law that, while it restrained no knave, but only a few fools, from taking money in return for a ridiculous show of services to patients, yet seemed to the laity as odious as the Inquisition, and often served as a cover under which designing men persecuted those whom they disliked.

Away, then, with all the rubbish with which meddlers have clothed the question, and let us meet it squarely but temperately, to the end that the real interests of the profession in general may be served, regardless of the political whip on the one hand and of the weakness inseparable from personal feeling on the other hand.

DR. SQUIBB ON THE CODE QUESTION.

SINCE the preceding article was written, our attention has been called to a noteworthy paper on the subject, in the January number of the "Ephemeris of Materia Medica," etc., presumably by the senior editor of that journal, Dr. Edward R. Squibb, whose writings are always temperate and logical, and, therefore, justly call for the greatest deference. Dr. Squibb's devotion to the interests of the profession, and his knowledge of what those interests involve, are not exceeded by those of any other man. Such being the case, the fact that Dr. Squibb

has ceased to be a practitioner of medicine detracts not at all from the force of what he says.

Notwithstanding the ardor with which he advocates a return to the old code, his sense of justice and his regard for truthfulness, it is gratifying to observe, lead him to the express declaration that the aspersions cast upon the motives of the new-code party by all others who have opposed them publicly are unfounded. He charitably attributes those aspersions to the difficulty which the upholders of the old code must have found, he thinks, in conceiving of any creditable reasons that could have led men to such a revolutionary course as the substitution of the new code for the old. We have given certain reasons, and, whatever may be thought of their force, they certainly can not with any fairness be characterized as sinister or discreditable. We have no reason to suspect that the committee were actuated by any hidden motives, and it has seemed to us indecorous that others should have made insinuations to that effect almost their sole argument.

Dr. Squibb discerns that the new code abrogates the old one only in so far as it allows of so-called consultations with practitioners of those sects in medicine that are not represented in the State society. That is unquestionably true, and it strikes us as unfortunate that this should be the only marked difference between the two codes, for the idea of heterogeneous consultations is so absurd that the mere liberty to take part in them seems naturally, to most physicians, a lowering of the dignity of the profession to which they belong. Dr. Squibb consequently infers—and we sincerely trust that he may prove to be correct—that the new code will not satisfy even its promoters, and that the real question at issue is, a code or no code. Proceeding on this assumption, he argues ably in favor of the desirability of a code, stating, quite correctly, that some accountability on the part of individuals to an organization should be enforced. He seems, however, to overlook the fact that no right-minded man questions the need of such an accountability, as was exemplified in Dr. Roosa's resolution, which provided for discipline in cases of conduct unbecoming a physician and a gentleman—the precise counterpart of the army rule under which severe punishment is visited upon those convicted of conduct unbecoming an officer and a gentleman; a rule which, it is safe to say, has done far more to preserve the *esprit du corps* of our army officers than the Articles of War or all the specific regulations that could possibly have been devised. Moreover, he fails to consider certain experience that has been had in the working of the no-code principle; witness, Dr. Holt's account, alluded to in our last issue, of its operation in New Orleans for the last nine years; also the fact, open to every one's observation, that those of us here in New York who have been falsely accused of a longing for so-called consultations with practitioners holding tenets irreconcilable with our own, or practicing under what we look upon as false pretenses, have not yielded up our consciences to the license allowed by the new code.

Convinced that a code is necessary, Dr. Squibb sees nothing objectionable in the old code. As we have said in the past, we

look upon it as a monstrous inconsistency that a physician should be debarred from holding a patent while at the same time there is no prohibition against his holding a copyright. Still, in the main, the provisions of the old code are founded in justice, morality, and propriety. The same was true of the old Connecticut blue laws, but they became odious nevertheless. Specific penal legislation is needed for society at large, for no one has any voice in the constitution of society; it is an aggregate of "all sorts and conditions of men," into which we can not introduce a single person with a view to his fitness, and into which we can not prevent the entrance of a single individual on account of his unfitness. The medical profession, on the other hand, is a picked body, or should be; those who enter it come from the higher walks of life, they imbibe the traditions of a learned and honorable profession from their preceptors, and, when they start upon actual practice, they need no guide-boards to mark out the path of rectitude, for they soon find that they are following so delicate a calling that their only safety lies in the strict observance of their duties toward others.

Dr. Squibb argues that the various county societies that have instructed their delegates to vote in favor of the restoration of the old code pursued the proper course. That they had a perfect right to resort to this method of making themselves heard, we have no question. Theoretically, of course, the objection comes up that representation is only attendance by proxy, and that the representative's position should come as near as possible to what that of his constituents would be were they able to attend in a body—i. e., that he should not be absolutely fettered in regard to his vote, but that, sinking his own individuality, he should shape his course at the meeting in accordance with the impression that the actual proceedings would make on those who sent him, provided they were present. This ideal sort of representation, however, is seldom if ever attainable, human nature being what it is; so that, practically, we do not see what other procedure was open to these county societies than just the one which they adopted, wherefore we agree wholly with Dr. Squibb as regards their action. On the other hand, it seems to us fortunate that there is a goodly number of counties that have not instructed their delegates, for the discussion may take such a turn that some action now unlooked for will offer the best means of delivery from the serious disagreement that prevails at present.

DIRECTORIES FOR NURSES.

THE difficulty of procuring skilled nurses, especially in cases of emergency, and in instances in which the services of a nurse are required for patients living in outlying localities, so that the time necessarily occupied in transportation must be added to that consumed in the hap-hazard search for a proper person, is one that almost any family is likely to find itself confronted with, and one in which, under ordinary circumstances, little assistance can be rendered by the physician, however much he may put himself to inconvenience to solve the quandary.

Boston ingenuity has set about remedying this unsatisfac-

tory state of things by the establishment of a nurses' directory, and such a decided success has been achieved that Philadelphia now has a like institution in successful operation, and we are informed that Washington, Cincinnati, San Francisco, and Toronto are taking steps in the same direction. We trust that New York will not long lag behind in a matter of such obvious utility.

Our space does not allow us to give the details in regard to the management and working of these directories, but it may be said, in general terms, that an office is established, and kept open day and night, under the direct supervision of a competent official, at which office a registry is kept of approved nurses. The office undertakes to keep itself informed as to the capabilities and personal qualities of the individual nurses so registered, and as to their whereabouts. By means of telegraphic or telephonic communication, together with special arrangements for a cab service, it is almost always possible to get any sort of nurse within a very short time, so that it often happens that an applicant is able to have a nurse under his roof in a suburban locality within an hour or two from the time he started on the quest—and, moreover, a nurse whom he has not taken blindly, but concerning whom he has definite and authentic information.

The expenses are met by a registration fee and by a fee charged to applicants. These fees are trifling in amount in comparison with the service rendered. It seems that the Philadelphia directory, an abstract of the first annual report of which has kindly been sent us, undertakes to supply wet-nurses. We regret to see that during the first year of its operation its expenses were largely in excess of its income, and we heartily trust that the favorable anticipation of the committee, Dr. W. W. Keen, Dr. Albert H. Smith, and Dr. S. Weir Mitchell, for its second year may prove well founded.

PYÆMIA OF LONG DURATION.

In the "*Cincinnati Lancet and Clinic*," for Nov. 25, 1882, R. J. Porre, D. D. S., reports the following extremely interesting case, which illustrates the close connection sometimes existing between dentistry and general surgery:

The patient was a man fifty-two years old, who in his youth had been somewhat noted as an athlete. For thirty years he had been a great sufferer, both mentally and physically, and was often confined to his room and bed for months at a time for treatment and recuperation. At no time during that period can he recollect that he was free from pain in some part of his body. He recalls that his troubles began with swelling and inflammation of the right side of his face and head, to the extent of closing his jaws and forcing him to liquid diet for a time. In a short time after the swelling had subsided tumors or boils appeared on different parts of the body, some of them secreting surprising quantities of pus. These have continued in an uninterrupted series—sometimes single, sometimes in groups, invariably containing abnormally large cores, which, after removal, left receptacles for the secretion of pus or a sanious fluid which continued to discharge for months before subsiding, and then only to give place to others of like character on other parts of the body. His hands and feet were constantly affected by an itching and burning eruption, or were a mass of boils and de-

generated and sloughing tissue. In this way he was rendered utterly helpless for many weeks at a time, and during some attacks alarming apprehension was felt that he would lose one or both hands or feet.

The throat and vocal organs were frequently so implicated that he lost the power of speech; respiration was at periods difficult and painful from spasmodic contraction of the diaphragm and muscles of the throat; the bowels for twenty or twenty-five years had been almost constantly so constipated and so affected with spasmodic constrictions (notably at the pylorus) that the daily use of artificial aids, such as bougies, enemata, and purgatives, was a necessity. During the same time, to urinate, the catheter was daily required, or the bougie to dilate most painful and obstinate spasmodic constrictions of the urethra. Phenomenally profuse, and consequently exhausting, night sweats resisted all the known methods of relief. Fevers varied in intensity and duration according to the severity of the complications, at times being intermittent for weeks. An important fact is that the pains always originated in and radiated from the right inferior maxilla, and, like electric shocks, involved not only that side of the face, head, and neck, but sent stiletto-like thrusts through the diaphragm, the bowels, bladder, limbs, hands, and feet. This fact alone should have led to an examination of the jaw, but it never did. The patient had been under vigorous mixed antisiphilitic treatment for thirty years, with only occasional interruptions to allow of a course of tonics, but no benefit had at any time been experienced. The case finally came under the charge of the narrator for examination as to the cause of the pain in the jaw. He found an abscess and caries of the jaw, at the angle and around the wisdom tooth. The tooth was extracted, the caries treated, and the patient was cured.

Proceedings of Societies.

OBSTETRICAL SOCIETY OF PHILADELPHIA.

A STATED meeting was held December 7, 1882, Dr. T. M. DRYSDALE, Vice-President, in the chair. Dr. R. P. HARRIS being called temporarily to the chair,

Dr. T. M. DRYSDALE reported the following case of UTERINE MYO-FIBROMA.—An unmarried lady, thirty-one years old, of Trenton, N. J., consulted me January 18, 1879, as to the advisability of an operation for the removal of an abdominal tumor. On examination it proved to be a uterine fibroid, hard, smooth-walled, and moderately movable. It filled the lower part of the abdomen, and extended upward to about an inch above the umbilicus. A peculiar feature in the case was the presence in the lower part of the tumor of a large vessel with an aneurismal thrill, which could be felt through the upper part of the left side of the vagina. As her general health was good, the tumor producing no inconvenience except by its size, and the menses regular in every respect, I advised against an operation, and directed her to take chloride of ammonium in ten-grain doses three times a day, and at her menstrual period thirty-drop doses of the fluid extract of ergot at the same intervals.

She continued this treatment for two years, the tumor in the mean while slowly increasing in size. At the end of this time, finding no diminution in the size of the growth, and becoming discouraged, she abandoned all medicines. The tumor continued to grow steadily, and became much softer in its upper portion. An examination made December 9, 1881, showed the tumor growing in all directions. It now projected into the pelvis behind the uterus, filling this part with a hard, nodu-

lated mass, while above, as has been stated, it continued to soften as it ascended, giving it the feel of a cystic growth.

From this time it continued to grow rapidly, and by July, 1882, it was pressing against the liver and filling the whole abdomen, except the epigastric and left hypochondriac regions. Her general health was seriously impaired, and she had emaciated considerably. On examination, the uterus was found displaced toward the right side; the sound entered five and one quarter inches in the same direction. When in the uterus, the sound did not follow closely the motions given to the tumor, while the tumor itself was found to be more fixed. The aneurismal vessel had enlarged considerably, and the thrill was much stronger.

Although I had dwelt upon and fully acquainted her with all the dangers of such an operation, yet she was very anxious to have the tumor removed, and as delay increased the danger, I proposed an exploratory operation, with the understanding that if the tumor could not be taken away with ordinary safety, it should be left undisturbed, but in that case, if possible, the uterine appendages should be removed, and the arteries in the broad ligaments tied.

The operation was performed November 2, 1882, in which I was assisted by Drs. W. P. Buck, W. S. Stewart, L. Harlow, of this city; Dr. I. Shellenberger, of Germantown; Dr. I. Eshelman, of San Francisco, and my son. An incision of about three inches in length was made through the abdominal wall, midway between the umbilicus and pubes, down to the peritonæum, which was cautiously opened, exposing a dark-red tumor with a rough surface. The structure of the tumor was soft, and it appeared highly vascular. Fearing to tear it, I passed my hand with extreme caution between it and the abdominal wall down toward the usual location of the ovaries, but could not reach them. Great difficulty was experienced in doing this, owing mainly to the rigidity of the abdominal walls, which kept them in close apposition to the tumor, and it required the exertion of considerable force to separate them. While thus attempting to reach the ovaries, I unfortunately tore a small opening in the upper surface of the tumor, from which the blood flowed freely. It was found that this bleeding could be controlled only by pressure, for the structure of the growth resembled a sponge, and was so soft and easily torn that a ligature was worse than useless, as it would cut through the loose tissue, leaving a larger bleeding surface. It being impossible, then, to arrest the bleeding by any other means than pressure, I was compelled to continue the operation for the removal of the tumor. To do this the incision was extended to three inches above the umbilicus, and downward nearly to the pubes. The tumor was attached above and behind to the mesentery, while beneath it was adherent to the broad ligaments and ovaries which lay under it, these bodies having been displaced to such an extent downward and backward as to be completely out of reach until the tumor was raised. The pelvic portion was strongly adherent to the surrounding parts. The mass was removed from the abdomen with considerable difficulty, but when this was accomplished it was seen to spring directly from the fundus of the uterus by a broad pedicle. A large clamp was applied to this and the tumor cut away. The adhesions were soft and brittle, and tore readily, leaving a rough, coarsely granular, or spongy surface, and from every adherent point poured out blood. The main bleeding was from the adhesions around the brim of the pelvis and to the broad ligaments. The tissues about these adhesions were ragged, and the vessels difficult to secure, but I succeeded in arresting the hæmorrhage. On raising the intestines, which had been thrust out by the contraction of the abdominal muscles, the torn mesenteric attachment was found to be bleeding freely. This surface required a great number of ligatures.

Immediately upon the withdrawal of the tumor from the abdomen the patient became pulseless, the skin pale and moist, and, in fact, all the signs of intense shock presented themselves. This was before any serious hæmorrhage had occurred. The active bleeding which immediately succeeded prevented any attempt at reaction, and although heat was applied, brandy given freely by the mouth as long as she could swallow, and hypodermic injections of brandy and morphia used, she sank, and died just one hour after the clamping of the tumor.

This case is of great practical interest in view of the strenuous advocacy by many recent writers of the operation for the removal of the uterine appendages as a comparatively safe method of arresting the growth of uterine fibroids. It proves that in these large fibromata such an operation is not only hazardous, but may be extremely difficult, and that, in fact, we can not even be certain that we can reach these appendages, for in this case so completely buried beneath the tumor were the ovaries and ligaments that neither could be found until it was raised from its bed, when they were discovered adhering to its lower portion. In an operation which I performed last winter the same difficulties were experienced; the ovaries could not be reached until the tumor, which was extremely large, weighing nearly a hundred pounds, was raised out of the abdomen. These, added to many other cases which I have met with, show that in large uterine tumors the removal of the uterine appendages may prove quite as dangerous as the extirpation of the growth itself, and be utterly impracticable unless the tumor is turned out from the abdomen. Now, if this should have to be done in order to reach these bodies, which would, of course, necessitate the detachment of adhesions and risk a shock by the disturbance caused by raising the mass, it would undoubtedly be better practice to leave the uterine appendages untouched and remove the tumor itself.

This case teaches another practical fact, which I have not found alluded to by writers on this subject: that when we meet with the soft variety of these growths, the certainty of hæmorrhage difficult to control is added to the other risks of the operation; and if the character of the tumor is recognized in time, and the presence of extensive adhesions determined, the safest plan for the operator to follow is to leave the tumor untouched and close the wound.

Dr. B. F. BAER (in response to a call from the chair) inquired of Dr. Drysdale the effects of ammonium chloride and ergot as administered by him in this class of cases. Did not ergot, when given during the menstrual flow, increase the quantity of the discharge? Did ammonium chloride have any effect in reducing the size of the tumor? He had used ammonium chloride a great deal; in fact, he gave it in every case of uterine fibroid that came under his care, but he had not seen or expected much from its employment; he considered it an alternative; it made the patient feel better, but he had not seen any reduction in the size of the tumor follow its use; it relieved the painful flushings connected with the existence of a uterine fibroid or the menopause. He was not very sanguine as to the effects of ergot used in any way, hypodermically or otherwise, in reducing the size of a uterine tumor, and it certainly could effect nothing in the case of a pediculated sub-peritoneal uterine fibroid.

As to the hazard of the operation, under the conditions existing in the case narrated by Dr. Drysdale, it could not be too strongly expressed; but there had been instances of recovery under conditions apparently as desperate as those just detailed. The patient referred to by Dr. Harris (Chairman *pro tem.*) was operated upon by Dr. Goodell. She was a lady of middle age, who had been suffering from profuse hæmorrhage which was endangering her life. This hæmorrhage was the result of the existence of a large uterine tumor, and Dr. Goodell

decided to attempt oöphorectomy as a means for her relief. An incision three or four inches in length was made in the middle line of the abdomen. The large size of the tumor made it very difficult to reach the ovaries; one was, however, reached and successfully ligated, and removed without causing hæmorrhage, although the pampiniform plexus was very much enlarged. It was necessary, in order to reach the other ovary, to enlarge the abdominal incision and roll the tumor over. It was found and removed, but a large plexus of veins was ruptured in the turning, and the hæmorrhage was frightful, the blood escaping from both ends of the vessels; ligatures were passed through the substance of the tumor, and finally succeeded in stopping the loss of blood. The doctor thought he might be compelled to remove the entire uterus to stop the hæmorrhage. This had happened to Knowsley Thornton.

This patient recovered, but Dr. Baer had seen death from peritonitis result in similar cases from the exploratory incision alone, the tumor and ovaries being found to be in so vascular a condition that Dr. Goodell was afraid to complete the operation.

Dr. HARRIS remarked that he was present at this operation, and was a close observer. The veins were ruptured during turning of the tumor; there was a peculiar anastomosis of the large venous trunks at the point of rupture. In this case the tumor had formed no adhesions.

Dr. Harris had been present at an operation by Dr. W. W. Keen in a similar case. The tumor was smaller, but the hæmorrhages had been so profuse before the operation as to leave the patient waxen in appearance. In this case the tubes were tied close to the uterus, and were removed with the ovaries.

Dr. BAER remarked that Dr. Goodell had been very successful in operating by removing the ovaries for the cure of metrorrhagia, the consequence of uterine fibroids.

Dr. GITHENS, in answer to the first query by Dr. Baer, remarked that, although not successful in relieving menorrhagia by the internal use of ergot, he had had very satisfactory results from the use of ergotin suppositories in cases in which there was no tumor present.

Dr. A. G. B. HINKLE alluded to several cases in which he had used ergot for the relief of menorrhagia due to the presence of uterine fibroids. He had given it three days before, during, and for three days after the close of the period; he also gave ammonium chloride in ten-grain doses, three times a day, all the time. This treatment had produced undoubted effects, and in some cases the tumors had disappeared.

Dr. HENRY BEATES had used ammonium chloride in the treatment of a lady who had a large uterine tumor. He continued it one year with marked effect. The menopause came on two years afterward, and the tumor had entirely disappeared.

Dr. Beates made some general remarks about the microscopical appearances in hard and soft uterine tumors, and thought that the effect of ergot would depend upon the presence or absence of muscular fibers as a component part of the tumor.

Dr. DRYSDALE, in closing the discussion, urged upon the members the desirability of limiting the operation of the removal of the uterine appendages for the cure of uterine fibroids to small tumors, or to those in the early stage, and which had not commenced to undergo the softening process. He had noticed, in cases under his care, a small spot of softening begin in a previously hard tumor and progress until the change was complete. The tumor presented this evening had undergone this change, and had undoubtedly assumed a malignant type. Before the operation it felt as if it contained a fluid. Since its removal it had shrunk to about one half its original size from drainage of blood. From the description given during the debate, the tumor in the case of Dr. Goodell's differed from the

one presented this evening in being much smaller, harder, and free from adhesions. The hæmorrhage in his case came from a single laceration in the tumor, and could be controlled. In this case not only did the torn substance of the tumor bleed, but every detached adhesion poured out blood in abundance.

In reply to Dr. Baer's questions, he would say that ammonium chloride, in some cases of hard uterine tumors, was remarkably efficacious in reducing the size of the growths; he had repeatedly seen them entirely removed by the remedy. He had never known ergot to increase the loss of blood during the menstrual period when used for the cure of intra-mural tumors; ergot had a decided effect upon the nutrition of these growths, but he would not expect it to act upon pedicellated growths unless inside the cavity of the uterus.

Dr. HENRY BEATES had been called in consultation to see a case of metrorrhagia. Ten years previously the patient had suffered from miscarriage at the fourth month. Subsequently each menstrual period became more and more profuse and prolonged until, at the time Dr. B. first saw her, the loss of blood was constant, and the patient was pallid and reduced almost to a skeleton, her weight being but ninety pounds. The curette had been previously applied to the endometrium, with the effect of increasing the discharge. Dr. Beates introduced a sound, which passed to the left to a depth of five and a quarter inches; he introduced a laminaria tent of the largest size, and next day, by digital examination, discovered a sessile tumor; further dilatation enabled him to remove the tumor by evulsion. It was necessary to divide it to extract it through the os uteri. It was composed of fibrous and muscular tissue, and contained numerous dilated blood-vessels, which had been the source of the hæmorrhage before operation. Three years afterward the patient's weight had increased to one hundred and fifty pounds.

Dr. B. F. BAER read the following report of A CASE OF LABOR WITH TWINS.—E. S., aged twenty-two, and single, entered Maternity Hospital on the morning of November 2d, complaining of pains resembling those of the first stage of labor, although her gestation was computed to have reached only the beginning of the ninth month. These pains, she stated, began on the previous evening. Later in the day I saw her. Inspection of the abdomen showed it to be greatly distended and irregular in shape. By palpation I could readily outline, as I thought, more than one fœtus, and by auscultation I very distinctly heard the heart-sounds of two children—one high up and to the right, the other below the umbilicus and to the left. I diagnosticated twin pregnancy. Vaginal touch revealed the os uteri to be dilated to about the size of a silver half-dollar, the lower segment of the uterus and cervix to be rather elongated than rounded, as in a presentation of the vertex. After a time spent in deliberation a presentation of the feet was diagnosticated. The pains were not strong, and they had very little effect on the cervix. The patient was in a fair condition, though somewhat excited. Her lower extremities were œdematous, her face was a little puffy, and her urine contained a small quantity of albumin. The heart-sounds of the children were strong. I ordered fifteen grains of the hydrate of chloral and twenty grains of the bromide of potassium to be given at once. This dose was repeated once during the labor. Her bowels were moved by an enema.

Three hours afterward the os was of about double the size of that found at the first examination. The pains, still feebly acting on the presenting portion, had very little dilating power. As there was no special reason why the labor should be hurried, I waited two hours longer, at which time the feet were well down in the cavity of the pelvis, and projecting through the os, though the membranes were still unruptured. As the first stage of labor had now lasted twenty-four hours, and the patient was

becoming tired, I felt that something more ought to be done to expedite the delivery; I therefore ruptured the membranes. One hour more was consumed before the feet reached the vulva. I now brought down the feet by extending the legs, and in a very short time after, without the least traction, the body followed as far as the shoulders, where it was arrested by extension of the arms. The arms were brought down as speedily as possible by carrying them forward over the face. The child showed by its movements that it was still living, and the cord was feebly pulsating. The latter was relieved from pressure as much as possible. It was imperative that the head should be extracted speedily, or the child would die, but for some reason it would not descend. I at once recognized, as the cause of the delay, that the head was extended, with its long diameter in the conjugate of the superior strait, and that it was not yet fully freed from the grasp of the cervix. I tried to flex the head and place it so that one of its antero-posterior diameters should correspond to the transverse of the superior strait, but could not, because, as I now recognized, the presenting portion of the second child was in the way. I could not reach high enough to bring the proper force to insure flexion of the head. I now very easily and quickly adjusted Simpson's forceps, when, by giving a slight oblique turn and carrying the handle of the instrument forward, the head flexed, and delivery followed almost immediately. Certainly, I think, not more than ten minutes elapsed from the time the body was expelled as far as the shoulders until the head was extracted. The child was alive, but in an ashenic condition, and, although the usual efforts at resuscitation were applied, it died soon after.

Examination now revealed a presentation of the right shoulder of the second child, and that the presenting part was projecting through the superior strait. The membranes were unruptured. Version by the vertex was performed by the bimanual method, the uterus stimulated by friction and pressure on the fundus, and the membranes ruptured. But the uterine contractions were very feeble, and it was some minutes before the head was secured from returning to its former position in the left iliac fossa, by having passed through the superior strait.

The uterus was now left to rest, with the hope that it would spontaneously regain enough power to expel the remaining child; but after waiting nearly an hour, and finding that the head had advanced very little, a drachm of the fluid extract of ergot was administered *per os*. This gradually spurred the uterus, and within thirty minutes afterward the second child was born, or one hour and a half after the birth of the first. The uterus was so much exhausted that it was with difficulty made to contract by friction and pressure on the fundus, and it would relax again almost immediately afterward. There was no evidence of separation of either placenta, in part or entire, because there was no hæmorrhage. Therefore I concluded to let the organ rest for a time for the purpose of recuperation. I waited more than half an hour, of course not disregarding the liability to hæmorrhage, open or concealed, and looking out for it. By this time the uterus was contracted pretty firmly around the placenta, which were attached in the neighborhood of the right cornu. I now tried again, very thoroughly, to express them by the Credé method, but failed. Traction on the cords seeming to indicate that the placenta were adherent, the only thing left to be done was the introduction of the hand. This I did with considerable difficulty. The uterus was firmly contracted at all points, except in the right upper portion, where it seemed to be paralyzed or prevented from contracting by the presence of the placenta. This gave to the organ the so-called hour-glass shape. The placenta were both adherent. I separated and withdrew them slowly, and held the emptied portion firmly by the external hand until contraction was secured.

There was no further difficulty, and the patient left the hospital at the usual time.

I think the following points in the case of sufficient interest to warrant me in asking the society's opinion on them:

1. The conduct of the first stage of labor. Ought I to have hurried it more, and thereby prevented exhaustion of the uterus? I think not. As it was, the os was not sufficiently dilated to allow the head to pass readily.

2. The extraction of the after-coming head. Placing the antero-posterior diameter of the child's head in the transverse diameter of the superior strait, and facilitating its passage, if necessary, by external pressure on the fundus of the uterus—the method so graphically described, and so earnestly and properly insisted upon by Professor R. A. F. Penrose, as the proper plan of managing the head in ordinary breech presentations—was impracticable here, for the reason that the second child was in the way, both of placing the head transverse and of external pressure. Manual or forceps action on the head was the only resort. That I did not at once apply the forceps I am sorry, for delivery three minutes earlier might have saved the life of the child.

3. The choice of ergot in preference to the forceps as a means of facilitating the birth of the second child. The administration of ergot for the purpose of expediting the delivery of the child can not be too strongly condemned, as a broad rule, but that there may be an occasional exception I think must be admitted, and, also, that this is one. The os and other soft parts were dilated by the passage of the first child; the pelvis was sufficiently capacious, the presentation and position normal. There was, therefore, no obstruction to the rapid passage of the child were the power furnished by the action of the ergot. Moreover, that the uterus was worn out, and wanted time and stimulation to recover, was proved by the history of the labor, as related. There would have been great danger of hæmorrhage had the forceps been used to empty the uterus rapidly.

4. Morbid adhesions of the placenta, causing irregular contraction of the uterus, or contraction of the organ in every portion, except opposite the attachment of the placenta, where the contraction was not strong enough to separate them, giving the so-called hour-glass form to the uterus.

5. What influence had the ergot, if any, in inducing the irregular contraction? From my own experience, I would answer that I do not think it had any; first, because I almost always give ergot as soon as the child is expelled, and before the expulsion of the placenta; and, second, because I have never met with irregular contraction of the kind under discussion except in cases where the placenta was morbidly adherent.

The question, May ergot complicate the third stage of labor, by acting on the circular fibers of the uterus, at the internal os for instance, independently of the oblique and longitudinal fibers, incarcerating the placenta thereby? I should like to hear discussed. I take a negative view.

6. The presentations were unusual. The first child usually presents by the head, the second by the breech or feet. In this case the first presented by the feet, the second by the shoulder.

They were both males, and weighed conjointly twelve and a half pounds. The first child was the smaller of the two. This is unusual.

Dr. HARRIS had had under his care a woman in labor with twins. The first one expelled was a female weighing eight pounds; it presented by the breech. After it came away the os uteri and soft parts contracted, and an examination made by one who did not know of the birth of the first child would not have discovered evidence of the fact but for the presence of the cord. The bag of waters presented, and the os uteri was again dilated. Three and a half hours after the birth of the

first child the second, a male, was extracted by the assistance of the forceps; its weight was nine pounds.

Dr. HORACE WILLIAMS related his experience in a case of twins. The first child descended in the fourth position, and no rotation occurred, as it was held so by the second child; the pelvis was roomy, but laceration of the perinæum resulted.

Dr. B. F. BAER also read the following:

A CASE OF UTERUS SUBSEPTUS, COMPLICATING THE THIRD STAGE OF LABOR.—Through the kindness of my friend, Dr. T. Stanton Crowley, I was permitted, on November 29, 1882, to see the interesting case which I here briefly describe.

After a rather tedious labor, in which the breech presented, Mrs. M. G., aged twenty-four, was delivered, two hours before I saw her, of her fifth child. The placenta was removed with some difficulty about half an hour after the expulsion of the child; but the membranes were retained by what was supposed to be an hour-glass contraction of the uterus, or contraction of the internal os.

I found the uterus well contracted, but somewhat irregular in shape, as felt through the hypogastrium. The internal os was contracted closely around a portion of the amniotic sac, which was projecting through it. I gradually passed one finger and then two through the os, and found that the membranes were pressed upon and retained by a firm substance, which obstructed the passage. After still further dilating, I tried to pass my hand, or as much of it as was necessary to reach the membranes, which I traced to the left cornu. In doing so my thumb was directed to the right, by the obstruction above mentioned, and passed into another cavity, independent, apparently, of the one in which my fingers were. The latter cavity was comparatively large, and contained the membranes. My first impression was that I was grasping a fibroid tumor which had been flattened by pressure, or possibly a supplementary placenta which was detached and lying edgewise, but the result of further investigation proved that it was neither. I next removed the membranes—nearly the whole of the foetal sac—and then made a more thorough examination. Again passing my hand partially into the uterus, while with the external hand I made counter-pressure on the fundus, my fingers entered a comparatively large cavity toward the left. This was rough—the placental site—and cylindrical in shape. My thumb, as before, passed to the right and into another cylindrical cavity, small, compared to the left, and smooth. Grasping the septum which separated my thumb and fingers, I found that there was a complete division of the uterine cavity into two unequal parts. The septum was wedge-shaped, with the blade of the wedge below, ending at the internal os, and, therefore, not dividing the cervical cavity. Externally the organ was not perfectly symmetrical and smooth, but at the point opposite the septum a slight depression was felt.

This is the *uterus subseptus unicollis* of Kussmaul, or a uterus which is divided in the cavity of the body only, the septum stopping short at the internal os, not dividing the cervical cavity, therefore. The slight sulcus on the external surface makes it approach the form described by the same author as the *uterus bicornis subseptus unicollis*.

I now became interested in the history of the former gestations and labors of our patient, and learned that this was her fourth labor and fifth child.

The first was a twin pregnancy, and terminated in premature labor in the seventh month. There was an interval of more than an hour between the birth of the first and second child, and another interval of fifteen minutes between the expulsion of the placenta. And they did not have even a membranous connection. Did each cavity have its own independent ovum, therefore? Not necessarily, but it is highly probable, because, as a rule, the placenta of twins have a membranous connection at

least, and in those uncommon cases where they are entirely separate, may not each foetus have had its own independent chamber furnished by one of the forms of double uterus?

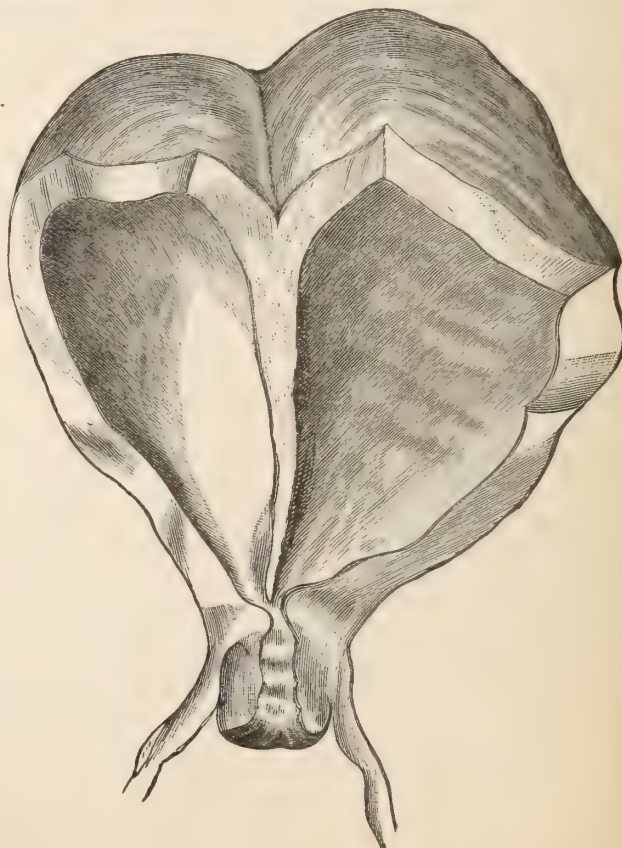
The second and third gestations went to term, but the labors were both complicated, requiring the aid of the forceps to supplement the imperfect expelling power of the uterus. We can readily understand why the uterine force was not applied to the best advantage on the foetal ellipse in a case of this kind.

The fourth and last labor was complicated in its third stage in a manner which is new to me.

May not some other of the complications of the third stage of labor be due to an undetected malformation of the uterus, resulting from arrested development? For instance, the perfect hour-glass shape which a few observers are sure they have met with. The *uterus bicornis subseptus*, a form of malformation where the horns diverge, and where a septum extends into the cavity, dividing it into two, furnishes a case in which the finger would encounter a point of constriction before it could enter the cavity containing the placenta; and externally the hand would detect the apparent constriction at the bifurcation of the cornua. But you will answer that bicornate uterus is very rare. So is perfect hour-glass contraction of the uterus; and the malformation of the uterus might not be so rare as supposed if it were detected in every instance where it exists.

"Busch mentions a case of *uterus bicornis septus* in which an exhausting hæmorrhage occurred, in consequence of the attachment of the placenta to the septum, which not contracting, the vessels remained open." (Klob.)

This malformation may account for some of the cases of superfetation, and menstruation during the early months of gestation. In this case the catamenia were absent during the whole of every gestation.



Dr. R. G. CURTIN had that morning delivered a woman of twins; after the uterus was emptied and well contracted, a strongly marked sulcus could be felt in the fundus.

Dr. DRYSDALE had under his care a woman whose uterus was divided by a complete septum.

Dr. W. S. STEWART inquired if any previous examination indicated a want of symmetry, or if it resembled an extra-uterine pregnancy.

Dr. BAER had not seen the patient until after the birth of the child, and did not ask about the point mentioned by Dr. Stewart. Dr. Goodell had reported a case of supposed extra-uterine gestation in which labor came on naturally. This type of uterus might seem to be very rare because it was so difficult to recognize. The presence of the septum would never have been suspected in this case had it not been found in the attempt to remove the imprisoned placenta.

Dr. HARRIS said that Dr. Goodell was uncertain of the character of the pregnancy, although every diagnostic test but one indicated that it was extra-uterine. This exceptional condition was the sensation of muscular contraction in the presumed cyst wall when the hand was applied to the abdomen. Not being able to reconcile this action with the development of a tubal pregnancy, he determined to trust the case to nature, and sent the woman to the Preston Retreat, where she was delivered naturally in a few days. The uterus was double, and was twisted on its axis, and the empty cornu was posterior, admitting the sound in the median line as into an empty organ.

W. H. H. GITHENS, M. D., *Secretary.*

Reports on the Progress of Medicine.

QUARTERLY REPORT ON SURGERY.

No. XIII.

By CHARLES B. KELSEY, M. D.,

SURGEON TO ST. PAUL'S INFIRMARY FOR DISEASES OF THE RECTUM.

HERNIA OF A PART OF THE WALL OF THE BOWEL.—Dr. Albert ([*Gesellsch. d. Aerzte in Wien.*] "*Wien. med. Woch.*," Nov. 4, 1882) gives a short explanation of the condition known as hernia of a part of the wall of the intestine which was described by Ritter in 1849, and the possibility of which has been denied by Roser. The latter holds that the whole wall of the bowel may be found in the mouth of the hernial sac, even when only a part is found in the sac itself, and that it is, therefore, a mistake to speak of a hernia of one wall of the bowel alone. König admits the condition, but believes a previous diverticulum to be necessary. Professor Albert operated upon one case where every precaution was taken to discover the exact condition. The whole sac and the mouth of the sac were laid open, but only one wall of the bowel was found protruding, and in this way the intestinal caliber was decreased, but no diverticulum was present, as was proved by the fact that when the gut was pulled out all protrusion disappeared. Even had not the protrusion entirely disappeared, it is possible to suppose that a diverticulum may be formed by the incarceration when it had lasted several days.

An incarceration of the intestinal wall of this variety can only take place after sudden and violent effort; and this form of hernia may be divided into acute, chronic, and congenital. In the acute form the incarceration may take place so quickly as to lead to a diagnosis of acute poisoning. As a result of pressure by the abdominal muscles, an intestinal loop is pressed against the point of least resistance—the mouth of the sac—and the amount which protrudes depends upon the length of the mesentery, the amount of the pressure, etc.

The chronic variety is due to a complete adhesion of the

hernia to the wall of its sac. A lesion of this kind is produced gradually, and exhibits the clinical history of gradually increasing stenosis, which, by accidental causes, may lead to a complete closure of the bowel.

In the case of a congenital diverticulum the condition is quite different. In this variety the intestinal caliber is not at all decreased, even though incarceration exist, and there is no hindrance to the passage of feces.

THE CONTINUED SUTURE FOR WOUNDS.—Dr. Tillmanns ("Centralbl. f. Chir.," Sept. 16, 1882) has much to say in favor of the continued suture in all kinds of wounds. He has used it in all sorts of cases, and believes that, with occasional slight modifications, it is capable of a much more varied application than it has ever received. It is simple in its performance, gives a very accurate adaptation of the edges of the wound, and, therefore, greatly facilitates primary union. He has used it in some remarkably large wounds, as, for example, one extending from the anterior superior spine to within a hand's breath of the knee joint, with entire satisfaction. He has used it in amputations, resections, amputations of the breast, extirpation of tumors, and in the operation for phimosis. He recommends its employment also in cases of intestinal resection, laparotomy, and in wounds of veins.

Dr. Bakó (*Ibid.*, Nov. 4, 1882) takes up the article by Tillmanns and adds much to what he has said in favor of this form of suture. He describes minutely his way of using it, of fastening the ends, etc. He begins it with an ordinary knot-suture, and, after having gone the length of the wound, cuts the thread, leaving an end about three centimetres long, in which he ties a simple knot to prevent its being withdrawn. This is a sufficient fastening when no great amount of tension is to be expected.

THE REDUCTION OF OLD SUBCORACOID DISLOCATIONS.—Dr. E. Ceppi ("Rev. de chir.," Oct., 1882) has advocated before, and now writes again in favor of Kocher's method of reduction in subcoracoid dislocations. At first the method was supposed to be applicable particularly to recent dislocations, but more numerous trials have demonstrated also its great utility in old cases. The method, briefly stated, consists in the following movements, which are practiced without anæsthesia, the patient sitting in a chair and the physician kneeling with one knee on the floor by the affected side. An assistant may stand behind the patient and manipulate the scapula, but this is not considered necessary: 1. The forearm is flexed at a right angle with the arm, and, by the aid of the surgeon's right hand and thumb, the elbow is firmly fastened against the trunk. 2. While holding the elbow exactly in this position, the surgeon carries the left hand of the patient outward (the dislocation in this case being on the left side) slowly, gradually, and without shock. By this means the humerus is made to rotate in the same way. The movement is stopped at the moment a notable resistance is felt. 3. The elbow is carried upward and a little inward, while the forearm remains constantly flexed at a right angle and the hand is strongly forced outward. The arm thus reaches a plane almost perpendicular to the anterior plane of the body. During this manœuvre the surgeon rises little by little from his knee. 4. It remains only to affect the rotation of the arm inward and to carry the hand of the patient to the healthy shoulder.

Kocher has been successful with this method in twelve out of thirteen old cases, the time of the existence of the condition being three weeks in one case, five weeks in two cases, seven weeks in three cases, three months in four cases, and four months in two cases. A list of twenty cases is appended to the article.

NEW METHOD OF REDUCTION IN DISLOCATIONS OF THE HUMERUS.—Dr. J. E. Kelly ("Dublin Jour. of Med. Sci.," Sept.,

1882) has described a very successful and simple method of reduction in dislocations of the humerus. For the operation, the selection of a couch or bed is of importance. It should be firmly fixed, and hard, and, when a choice is practicable, the author prefers for the subglenoid dislocation that it should be about three inches lower than the great trochanter of the operator. For the anterior dislocations, one a few inches lower than this is preferable, and, for the posterior, it should be a little higher for the force to be applied advantageously in the direction of the glenoid cavity. The patient should be placed as close as possible to the edge of the couch, on his back, with his head low. In order to make the description intelligible, the author divides his operation into two stages. The first, or preparatory stage, is the one in which the surgeon assumes the most favorable position for the operation. He places the injured arm at right angles with the body, and, standing against it, with his side to the patient, and his hip pressed firmly, but not roughly, into the axilla, he folds the arm and hand of the patient closely round his pelvis, and fixes the hand firmly by pressing it against the crest of his ilium. The second stage, during which the reduction is accomplished, is very simple, consisting merely in a rotation of the surgeon's body away from that of the patient with a force and rapidity which necessarily vary with the peculiarity of the dislocation—some yielding most readily to a sudden and powerful effort, and others to gentle and gradually increasing traction.

In reviewing this manœuvre, the author briefly contrasts the substitutes which it affords with the recognized methods of making extension, counter-extension, and coaptation. In the extension, instead of the grasp of the operator, which is often inefficient, the clove-hitch, or other knot, the special bracelets, combined with flexion of the forearm, bandages, chamois, or adhesive plaster, he proposes the simple folding of the arm, forearm, and hand of the patient around the pelvis of the operator, which, forming a series of angles, distribute the resistance so as to enable the operator, with one hand, to afford sufficient fixity for the application of the powerful extending force. For the limited strength of the operator, the uncertain and mutually obstructive force derived from numerous assistants, or the dangerous and sometimes disastrous mechanical extension by pulleys or adjusters, he substitutes a perfectly controllable and easily sustained power of some hundreds of pounds, derived from nearly all the muscles of the trunk and of the upper and lower extremities.

Again, for counter-extension—which must have been a matter of great difficulty when such measures as the split sheet, the fixation-table, the albi, or the special belts, the numerous assistants, the suspension of the patient over a door, through a ladder, or from the ceiling—the author suggests merely the weight of the patient's body, and the resistance afforded by its traction or friction over the rough surface of the couch.

For coaptation, in lieu of the various fulcra, such as the heel, knee, bed-post, special balls, jack-towels, etc., he supplies one which is equally safe and efficient, inasmuch as the well-padded gluteal region is unlikely to produce a rupture of the axillary artery, or similar accident, and because, in the torsion of the body, the hip materially assists by forcing the head of the humerus toward the glenoid cavity, and by its volume it makes the extension tend to the desirable angle of 45° , which places the deltoid and supra-spinous muscles in the most favorable condition. For any additional manipulation the surgeon has the hand next the patient's axilla disengaged for such manœuvres as lifting the head of the humerus into the cavity, making traction upon it forward, or pressure backward, according to the nature of the dislocation. The fixation of the scapula is a point of considerable importance, and is secured by its position between the

couch and the body of the patient, while its inferior angle is supported by the gluteal region of the operator.

One of the great advantages of this operation is the ease with which the surgeon can reduce a dislocation without anæsthesia, without assistance, and without the appearance of any violent exertion. Should greater extension be necessary, it may easily be applied to the affected arm by another assistant, and counter-extension may be increased as easily by pressure on the sound shoulder or the pelvis.

TWO NEW METHODS OF REDUCING DISLOCATIONS OF THE FEMUR.—The same author (*Ibid.*, Oct., 1882) also describes very clearly two new methods of reduction in dislocations of the femur which are easily applied and extremely efficacious. For the purposes of his description, he divides all dislocations of the femur into anterior and posterior. The following case illustrates the method in the latter form: The patient was a man of such remarkable muscular development as to have gained for himself the title of "King of the Quay Porters," a body distinguished for their strength and endurance. The author's colleague on three occasions consulted with the hospital staff and with other eminent surgeons. Guided by his personal knowledge and the suggestions of his friends, he caused special apparatus to be constructed, from which he expected increased facilities, and ineffectually tried every recognized method of reduction. At the last consultation the author obtained permission to test an expedient which had occurred to him. He fixed the patient's pelvis firmly on the floor, and, standing over the limb, he flexed it, and placed the patient's foot between his own thighs; then, passing his forearms under the patient's knee, he made vigorous traction upward, and, to the relief of all, effected the reduction.

By this favorable result, and a successful experience of more than six other cases, in some of which many methods were tried, he has been able to develop the details of the procedure, which are thus described: Three strong screw-hooks are inserted into the floor, close to the perinæum and each ilium of the patient, and to these hooks he is secured by a strong bandage or rope. The injured thigh is flexed at right angles to the patient's body, the foot and lower extremity of the tibia are placed against the perinæum of the surgeon, who, bending forward, with his knees slightly flexed, passes his forearms behind the patient's knee and grasps his own elbows. He is now in the best position to accomplish the reduction, and with this object he exerts his strength to draw the femur upward, the action being generally efficient; but, when necessary, circumduction may be combined with extension, as the surgeon, while maintaining traction, sways his body toward the patient's uninjured side, then toward his head, then outward, and, stepping backward, he lays with a sweep the injured limb by its fellow, and thus the dislocation is reduced. In ischiatic dislocations a bandage, upon which an assistant may make traction, can be passed around the thigh close to the trochanter, and may be useful for the purpose of liberating the head of the bone from the sacro-sciatic foramen.

By this method the extension is applied in the most approved direction, and with the greatest economy of force, as the muscles of prehension are hardly called into play, being only required for the slight effort necessary to fix the hands on the elbows, while the forearms are flexed by their numerous and powerful muscles, and the patient's leg is kept in position by being a lever of the third order; and its displacement, owing to the unfavorable point to which the power is applied, would require a force of over a thousand pounds. The agency for accomplishing extension which the author substitutes for the pulley is ample, under perfect control, and sustainable, if necessary, for a considerable time, being derived from the most powerful muscles of the body—those of the back, shoulders, and

lower extremities. It is an adaptation of the feat termed by athletes "raising" or "lifting a weight," which affords an example of the most powerful of human dynamics—reaching, in some instances, to eight hundred or one thousand pounds, the average being from three hundred to five hundred pounds. The counter-extension is simply limited by the strength of the bandage, the hooks, and the floor; and the boards are secured from misplacement by the fact that, in addition to his own weight, the operator transmits to them a resistance equal to the power he exerts. The screw-hooks should have a deep thread, and should be inserted at an angle obtuse to the body of the patient, in order to afford the greatest resistance.

For anterior dislocations the author proposes the following method: The patient is placed on his back on a bed or table of such an elevation that his pelvis is nearly as high as the trochanter of the surgeon. A bandage passed round the pelvis, and secured on the side of the table or bed farthest from the dislocation, affords efficient counter-extension. The surgeon, with his face directed toward the dislocated joint, stands on the inner side of the injured limb, with his trochanter pressed firmly against the femur; bending the leg behind his back, he grasps the ankle with the corresponding hand, and is in the position to effect the reduction. He now rotates or turns his body away from the patient, thus making traction on the femur in the most favorable direction, and at the same time pressing its head toward the acetabulum. The operator has one hand disengaged for the application of minor manipulation should it be necessary.

The author takes pains distinctly to disclaim any intention of proposing a substitute for the great triumph of modern surgery, the treatment of femoral dislocation by simple manipulation during anæsthesia. But, in case of the failure of this method, that of the author offers many advantages. It also promises to render the surgeon independent of anæsthesia, assistants, and mechanical power, as in several of his cases he has reduced dislocations without aid from any source.

THE CHOICE OF MATERIAL FOR THE LIGATURE OF ARTERIES IN THEIR CONTINUITY.—Dr. B. May ("Brit. Med. Jour.," Oct. 14, 1882) discusses the relative value of several of the materials used for ligatures. The choice is narrowed, at the present time, to some form of animal tissue—as silk, catgut, or the strip of ox aorta recently advocated by Mr. Barwell. Whichever is used, it is cut short, and the wound closed over the foreign body, in the hope of obtaining primary union. The best material is that by which this requirement is most surely fulfilled, and which, at the same time, effects a permanent barrier to the circulation. Silk, even the best, and with the most careful antiseptic precautions, can not be relied on for the former purpose. Though the peritonæum has the power of encapsulating it, the connective tissue only does so as a lucky accident, and, more often than not, strangulation of the outer coat of the vessel proceeds to ulceration, by which the ligature is cast loose. By means of catgut a true subcutaneous ligature can be insured, but the permanent occlusion of the vessel is not so certain.

In the well-known case of Spence, in 1869, the catgut softened and relaxed its hold upon the common carotid with a fatal result. This case and others occurring at the same time were not treated with antiseptic precautions. Since then Lister's incessant labors have culminated in the chromicized catgut, which "will retain its hold on a vessel for three weeks, and yet become absorbed or encapsulated." This appears to be the perfection of a ligature.

The author has, during the past year, ligatured four large arterial trunks in their continuity. In three cases he used ordinary catgut; in the fourth, chromicized gut. In the last case the result was not so satisfactory as in the other three, for the

wound did not heal throughout its entire extent, and a small sinus remained for a long time, which seemed to lead down to the ligature. Inasmuch as the writer could discover no failure in the antiseptic precautions in this case, he believes the failure to obtain primary union throughout the whole wound may fairly be attributed to the ligature employed.

THE LARYNX-FORK FOR REMOVING LARYNGEAL NEOPLASMS.—Voltolini, of Breslau ("Arch. of Laryngol.," Oct., 1882), describes and figures this instrument for the first time in an American journal. He does so, as he says, on the one hand, to quiet those of his colleagues who imagine that he operates only with the galvano-cautery apparatus, and recently with the sponge; and, on the other, because he considers the instrument a very efficient one. The larynx-fork is an instrument sharp only within, combining guillotine, knife, forceps, and cutting-loop in one instrument, shaped, as its name indicates, like a fork, the inner edges of the prongs being cutting surfaces, while the outer are smooth and rounded. It can, therefore, boldly be put into the larynx or pharynx without the fear of producing injury during the introduction or withdrawal, whether the patient heaves, swallows, or moves. A lancet-shaped knife acts as a sharp wedge; the point first pierces the tissues, and the two sharp edges enlarge the wound. The fork acts similarly, only in reversed order. It separates the soft parts to the same extent as a lancet-shaped knife of the same breadth, the only difference between the two instruments being that in the knife the point is downward, while in the fork the point of the two cutting halves is upward. The two inner free borders represent cutting knives, which end above in a circular cutting edge. The object of the circular space is that the soft tissues (pendant or cauliflower papilloma, etc.), after the knives have pierced them, may remain fixed in the hole, and eventually be torn away. The instrument is very slender and thin, like a larynx-probe, and can in a moment be bent at will, for only the points and knife are made of hardened steel, the rest of flexible material.

As a matter of course, the author has two forks, one in which the two prongs are behind each other, and one in which they are side by side. He uses them according to the seat of the neoplasm in the larynx—the first when it is attached laterally, the second when seated either at the back or front.

The author gives one case in which the fork was of signal service. The patient was nearly suffocating on account of a polyp, as large as a German plum, nearly completely filling the whole larynx, which, however, in spite of its enormous size, the mirror had not revealed to another physician, because the epiglottis nearly touched the posterior wall of the pharynx. On this account, every intra-oral operative procedure was excessively difficult. In such a case of urgent dyspnoea even tracheotomy is dangerous, because the blood running down the trachea may occlude the small air-passage which is left. The author therefore tried intra-laryngeal operation. With great caution he used the galvano-cautery, the only instrument which seemed permissible. In spite of the greatest caution, the irritation of the operation caused so much dyspnoea that the patient had to remain sitting upright in a chair during a night and a day. But the consequent suppuration diminished the polyp to such an extent that the danger of asphyxia passed away, and holder procedures became possible. The epiglottis also gradually became raised, and allowed a better view of the larynx. The large polyp was seen to consist of two portions: one above the vocal bands, almost completely filling the laryngeal space; the other, at least as large as a hazel-nut, under the vocal bands, projecting into the trachea. Galvano-cautery achieved most brilliant triumphs. More and more of the two projecting portions was destroyed, and the succeeding suppuration further reduced the

polyp. At length the lower tumor had become so small that it moved up and down during respiration, and caused, as it passed the vocal bands, a flapping noise which bystanders could hear. As the author considered it important not to let this lower portion of the polyp, perchance in the night, fall into the trachea, as it might have done under the continued use of the galvanocautery, he had a strong desire to remove from the larynx the whole tumor at once. The pendent position of the epiglottis and the inaccessibility of the larynx made it impossible to grasp it with the forceps. Then the fork came into play—one with the prongs behind each other. This delicate instrument was introduced between and below the vocal cords, the flapping piece was transfixed, and the fork and tumor withdrawn together. It required some force to free with the fingers the morbid mass from the instrument, into the opening of which it was tightly wedged. It measured one centimetre and a half in length, and three quarters of a centimetre in breadth.

DIFFUSE ANEURISM OF THE FEMORAL; OPERATION OF ANTILLUS WITH ESMARCH'S BANDAGE; CURE.—Dr. D. Mollière ("Lyon méd.," Oct. 1, 1882) asks whether in all aneurisms of the extremities we should have recourse to indirect compression, either digital or mechanical; and, in case of the failure of this means, whether Esmarch's bandage should be applied. This, he thinks, is the only question which seems to occupy the minds of the surgeons of to-day; and almost all of the observations which have been published during the last few years have been directed toward the solution of this problem. The case of which he gives the details is intended to show that the old operation of Antyllus is sometimes indicated; and that the surgeon may find himself in the midst of threatening accidents, which can only be met by a free opening in the sac and the ligature of both ends of the wounded artery. He holds that by the use of Esmarch's bandage and antiseptic precautions the great dangers of this method may be avoided. These dangers are failure to find the wounded point in the artery in the midst of tissues infiltrated with blood, and constantly threatened with a terrible hæmorrhage; and, again, the risk of septicæmia and secondary hæmorrhage which arises from so large a wound exposed to the air, and to the fermentation of blood-clots. The method of Antyllus may at present be considered as harmless and easy. The ancient descriptions have greatly exaggerated the difficulties of the operative procedure, which is essentially simple when the circulation has been stopped by Esmarch's bandage.

The patient upon whom Mollière operated was a man, aged thirty-five years, in good general condition, who a few weeks before had thrust a pair of scissors into his thigh at the level of Hunter's canal. At the moment of the accident he had lost an enormous quantity of blood. On admission there was a cicatrix about one centimetre long, and covered with a thin crust at the point of injury. The thigh at this point was the seat of a very large, soft, diffuse tumor, having the volume of the fist, and located deeply among the muscular layers of the thigh. It was distinctly felt by the side of the popliteal space between the biceps and the muscular body of the internal region. It pulsated synchronously with the pulse, and, by placing an index of paper on the skin of the region, the expansive movements could easily be demonstrated. All these signs vanished when the femoral was compressed in the groin. On auscultation, a *bruit de souffle* was exceedingly well marked at the point of the cicatrix. The diagnosis was traumatic, diffuse femoral aneurism. The patient himself gave an exceedingly good corroboration of the fact that the aneurism was diffuse, for he had noticed that since his entrance to the hospital it had daily increased in size. It was noted as a singular fact that the region was normal in color, the skin had the same tint as the rest of the limb, and there was no trace of ecchymosis.

In the presence of so grave a lesion, what treatment was to be adopted? The author thought at first of indirect compression as the most simple and least offensive measure. By applying the compressor of Jacques Bonnet (a bit of wood and an elastic band) a rapid amelioration was gained, and at the end of two days the tumor had become immovable and silent.

A single consideration made the author hesitate at first in applying this treatment. Was the cicatrix of the wound solid enough to give security against a severe hæmorrhage? It inspired the author with little confidence; but the patient was exceedingly intelligent, and it was easy to make him understand what accident might happen, and what he was to do under the circumstances.

After he had been eight days in hospital he remarked to the surgeon that his leg was swollen, and that the skin of the thigh was œdematous. At the same time he complained of suffering greatly. The temperature of the part was raised, and he had a light febrile movement. Two hours later he removed the compressor for an instant to change his position in bed, and instantly there was a gush of blood from the old cicatrix reaching a yard. To place his finger on the wound, and replace the compressor on the femoral, was the work of an instant for the patient.

Mollière, being called instantly, placed the patient under ether, while an assistant compressed the femoral with his fingers, and resolved to ligature the two ends of the artery in the wound and to drain the sac after having turned out the clots. This was done immediately, after having applied Esmarch's bandage, which was loosely placed over the affected point, lest too great compression should favor the infiltration of clots into the cellular tissue. An incision of six or eight centimetres was made over the course of the artery. This was found to be perforated on its internal aspect, showing an oval orifice about one centimetre long. Two ligatures were placed, one above and one below, and the artery was divided between them. An enormous mass of clots was then turned out, which were liquified, and showed no trace of organization. The muscles had been dissected by the blood, and the femur was denuded on its posterior surface and roughened—a condition so frequently seen in vertebræ in contact with aneurisms, but very rarely in the bones of the extremities. A counter-opening was made on the outer surface, and a drain passed through the wound, which was closed with five metallic sutures. Thanks to the bandage, the operation was absolutely bloodless, and was done with the greatest facility. All the antiseptic methods were followed as strictly as possible. The leg was enveloped in salicylated cotton; but over the wound only a light dressing was applied, and the Mackintosh was omitted, so that no secondary hæmorrhage might be concealed. No accident interfered with the progress of the cure. There was a slight œdema of the back of the foot, which disappeared rapidly. During the first week the limb was immobilized in a large gutter of Bonnet, to prevent all movement. When the patient left the hospital, perfectly cured, he walked freely, and showed only two perfectly healthy cicatrices—one on the inside, and the other on the outside of the thigh.

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Miscellany.

A PLEA FOR THE NEW STATE CODE.—[We are indebted to the courtesy of the "Medical Record" for proof-slips of the following document, entitled "The New York Code of Medical Ethics and Freedom in Consultation: a Presentment of the Case for the Non-Restrictive Clause in the New Code. By One of its Advocates." It reaches us too late for comment.]

Rules governing Consultations.—"Members of the Medical Society of the State of New York, and of the medical societies in affiliation therewith, may meet in consultation legally qualified practitioners of medicine. Emergencies may occur in which all restrictions should, in the judgment of the practitioner, yield to the demands of humanity" (Code of Ethics of New York State Medical Society).

The section in question simply *permits* consultation with legally qualified practitioners, whatever their therapeutic methods.

"But no one can be considered as a regular practitioner or a fit associate in consultation whose practice is based on an exclusive dogma, to the rejection of the accumulated experience of the profession and of the aids actually furnished by physiology, pathology, and organic chemistry" (Code of Ethics of the American Association).

The restrictive section in the old code forbade consultation with any but regular physicians, defining "regular" as above.

The question at issue is not primarily the utility, or otherwise, of consulting with any but those who call themselves "regular," but concerning the advisability and justice of the individual being allowed to do so if the welfare of the patient or of the community seems to demand it; but concerning the advisability and justice of allowing every physician to decide for himself whether he will or will not do so.

Reasons for the Change—Objections to the Old Restriction.—1. *It was inoperative.* For many years the number of cases of discipline for violation of this restriction has been extremely few. Although we have positive knowledge that consultations with so-called "irregular practitioners" quite often occur, we have been able to find no instance, occurring within recent years, when such cases have been subjected in New York State to investigation and discipline.

2. *It failed to lessen quackery.* We can find no evidence that the old restriction, while placing a formal barrier about regular medicine, has lessened the number of quacks, or injured their prosperity.

3. *It was opposed to the general judgment of the public,* who never have understood, and never can be made to understand, the technicality on which the old restriction was based. It therefore injured the standing of the profession before the world.

The people and lay press throughout the country unanimously approve the action of the State Society in removing the restriction. Such a complete unanimity of opinion among all classes upon a question of morals should not be disregarded.

4. *It affronted and made enemies of all medical men declared to be irregular.* It was a form of persecution which was just weak enough to act as a stimulus and help to the persecuted.

5. *It infringed on individual rights.* Our chartered medical societies have a right to say what shall be the moral qualifications of their members, judging them by the ordinary moral standards; but they have no right (morally) to impose a special line of conduct upon individuals, and say arbitrarily that such rule of action alone is right. This establishes a technical morality which is not only unjust, but is unphilosophical and at variance with the principles of modern ethics. *Good and bad* are only relative terms. A certain line of conduct pursued by a hundred persons may be good in ninety cases, bad in ten. The motive is the main issue. A consultation with a "regular" phy-

sician may be dishonest and mercenary. Medical societies and codes may urge honesty of action and right conduct generally, but to prescribe specific things, and say that they alone are always right, is unwise and unjust.

6. *The definition of an irregular physician given by the old code does not describe all in this State who are classed as irregular.* If literally interpreted it would really permit consultation with many of this class. Whatever may have been the condition of medical education and morals at the time when the "American Code" was adopted, the number of those styled "regular" does not now embrace all who are educated, honest, and trustworthy practitioners. This is demonstrable in the experience of nearly every physician who has been for even a few years in practice in this State. The attitude of the defendants of the old code is therefore inconsistent.

7. *A legal wrong was done by the old code,* in the opinion of eminent lawyers. The State Medical Society is a chartered institution with certain powers by which it profits. Yet it used these powers to exclude from professional recognition and to injure persons whose legal status was exactly like that of its own members.

8. *It was a hindrance to securing medical legislation for the general elevation of the profession.* This has been illustrated in Massachusetts and other States, as well as in New York.

Advantages of the New Section.—Its advantages are summed up in this: that it does away with the objections just enumerated, to the old, restrictive code.

It is in harmony with general ethical principles which urge the discharge of our duty toward ourselves and our brother rather than the assumption of a special attitude toward a class prejudged and condemned.

It places the profession beside that of France and Germany, where the policy of ignoring rather than of actively opposing homœopathy and other dogmas is successfully pursued.

It gives opportunities for showing that the surest way to vindicate the superiority of scientific medicine is to let it come in contact and comparison with charlatanism.

Special Charges and Objections made to the New Section.—1. *That it was the work of specialists who wished to increase their consultation practice.* This charge has been laboriously, persistently, and insultingly made. While it has nothing to do with the absolute merits of the question, it is, we believe, entirely false.

The code was drawn up by a committee of five, three of whom were general practitioners; and three, also, were ex-presidents of the society, widely known and entirely trusted.

2. *That the code was rushed through the society hastily, by a small vote.* The new code was fully discussed, at great length, in two sessions, and was adopted by a vote of fifty-two to eighteen. Some who voted against it voted for the Roosa resolution, so that the majority for a merely non-restrictive clause would really have been larger. The meeting itself was one of the largest that the society ever held.

3. *That the new section is an entire surrender to dogmatic medicine, i. e., an acknowledgment of the truth of homœopathy, Thomsonianism, etc., and that it implies the confession of having previously held a false position.* The new clause simply means that we believe it unwise and unjust to forbid consultations with legally qualified practitioners. It advises nothing and admits nothing beyond the principle that there may be occasions when the rights of humanity should be considered paramount to the demands of trade-unionism.

The questions of "surrendering" or "admitting," however, we repeat, have no bearing upon the absolute right or wrong of the thing done. If the previous position was really wrong, it should be only fair to admit it. It should be remembered, moreover, that society progresses and requires new adjustments.

4. *That the homœopathist or other medical dogmatist can have nothing in common with the scientific practitioner, and that consultation between the two must, a priori, be absurd, futile, or even injurious.*—The code admits, does not advise, such consultations. It urges honesty, and if a doctor be honest and believe the above [*sic*], he need not consult with dogmatic or dishonest physicians. But even admitting the above [*sic*] proposition so far as relates to therapeutics, it does not

necessarily cover matters of diagnosis or general management. Furthermore, in this State, many so-called irregulars are not followers of dogmatic medicine.

5. *That it will lower the tone of the profession.* It is claimed that the removal of the restriction will lower the tone of the profession and lead to moral decline and decay.

It is impossible to prove such a charge, and only declamatory statements have so far been brought forward in evidence. Experience so far shows that individual morals are not appreciably affected by society codes. Doctors become good or bad as other persons do. The superiority of scientific medicine must be proved by its works. Societies can elevate medicine most by scientific work and criticism—which is their legitimate function. As regards ethics, they can only urge general right conduct. The present code continues to urge and demand this of its members; if they obey it they can not be made worse by having the privilege of consulting as conscience dictates. On the other hand, submission to a code of ethics which is believed to be unjust, oppressive, and opposed to the demands of conscience and the sense of humanity, is certainly not calculated to elevate the moral tone or inculcate honesty of principles.

THE COMMITMENT OF LUNATICS.—On January 4, 1882, the Senate of this State passed a resolution requesting the Attorney-General, Leslie W. Russell, and the State Commissioner in Lunacy, Dr. John Ordronaux, to report to the Legislature such amendments to the laws relating to the insane as might seem to them desirable. In pursuance of such request, they in turn asked the Medico-Legal Society of this city to state such changes as were deemed necessary. Quite recently the Permanent Commission of the society, to whom the matter was referred—consisting of Clark Bell, Esq., Austin Abbott, Esq., George H. Yerman, Esq., Jacob F. Miller, Esq., Dr. R. J. O'Sullivan, and Dr. Wooster Beach—have made a very careful report, which will demand the attention of the general public as well as members of both the medical and legal professions.

The Committee, in contrast with Mr. Russell and Dr. Ordronaux, take the ground that the whole system of lunacy laws is inadequate to the needs of the case, and should not be changed by amendments here and there, but should be examined carefully by a commission appointed for the purpose, and revised from beginning to end.

The main points considered were the proper safeguards to be thrown about the legal commitment to asylums, and the means to be suggested for discharge in case of erroneous confinement or the recovery of the patient.

The laws of the State at present allow a commitment to an asylum upon the certificate of two physicians of three years' standing; but the confinement shall not be longer than five days, unless within that time the certificate shall be approved by a judge or justice of a court of record in the county or district in which the alleged lunatic resides. The qualifications of the physicians, in addition to three years' practice, are that they shall be of reputable character, graduates of some incorporated medical college, and permanent residents of the State, which qualifications must be certified to by the judge. The Committee were of the unanimous opinion that it ought not to be in the power of any two physicians to commit to an asylum upon a simple certificate, and that no person, sane or insane, should be shut up for five days, or any other time, without due process of law, or the decree of a court of competent jurisdiction, and a full opportunity being granted for a hearing. The Committee are also of the opinion that the statutory qualifications of the examining physicians are radically defective. They say that the "physician may be perfectly respectable, of the highest character, and three (or even twenty) years' practice, and still, from lack of experience on this subject, not be entitled to act, especially in difficult, obscure, or doubtful cases."

In place of this provision the Committee advise that examiners in lunacy should be selected by a competent commission or tribunal, and should be only men who are peculiarly qualified by experience, skill, study, and attainments, to speak intelligently upon such cases. They also suggest that no judge should sign an order for commitment except after full and satisfactory evidence, by well-qualified medical experts, that the person was insane at the time; and that, if pos-

sible, such person should be brought into Court before the order is signed.

In answer to the objection that great harm might be caused by the violent acts of some madman before this machinery could be brought into operation, they say that such person or persons might be arrested for disorderly conduct.

In regard to the control of the insane after they are placed in an asylum, the Committee make several suggestions. First, that every person incarcerated should have at all times the right to communicate, by letter or mail, with counsel and friends; secondly, that every alleged lunatic should have the right at any time to have his mental condition examined by experts not connected with the institution in which he is confined, and that bulletins containing such information should be posted in places accessible to the patients; and, thirdly, that there should be an examination of every patient in an asylum at least as often as every six months, by experts specially appointed for the purpose, and unconnected with the institution in which the patient is confined.

As to the discharge of patients in case of erroneous confinement or recovery, the Committee do not advise any special mode of procedure, but suggest that the power now given by the laws to the physician in charge of institutions in the counties of New York and Kings, to absolutely discharge any patient upon signing a certificate that such discharge is safe and proper, is of very questionable propriety, and, if wise, ought not to be confined to these counties alone.

The powers now possessed by the State Board of Charities for the visitation and investigation of lunatic asylums the Committee regard as wise and beneficent.

The control of insane persons, exercised by any committee to whom they are given in charge by the courts, should always be open to supervision by the courts; and especially should this be the case in regard to removal beyond the State.

The question of the control of criminals acquitted on the ground of insanity, whether there can be any fixed time settled upon for their detention, and whether there should be any time before which application for discharge on the ground of alleged recovery could not be entertained, the Committee regard as of great importance, and suggest that the restoration to reason, as pronounced by experts, should be the test of detention or discharge, and that the element of time should not weigh. As a final suggestion, the Committee advise that there be no change in our divorce laws in order to allow incurable insanity as a ground for divorce.

The report of the Committee, as a whole, is an important one, and its suggestions are well worthy of the attention which the Legislature will no doubt give them.

A BAR TO AN ACTION FOR MALPRACTICE.—An interesting decision to physicians and surgeons was recently rendered in the courts of one of the Western States.

The services of a surgeon in a particular case were not regarded as satisfactory by the patient, and his bill was refused payment, and, in a suit brought to recover the amount of the bill, the patient defended on the ground that the services were of no value. The decision of the Court was in favor of the surgeon, and thereupon the patient brought a direct suit against him, claiming damages for malpractice. Upon the trial this suit was dismissed, the Court holding that the question of malpractice had been in effect adjudicated in the former suit under the issue that the services were of no value.

This decision is in accord with one rendered in this State in 1878, and it is no doubt the general rule that the question of malpractice is set at rest by a favorable decision in an action to recover the value of services.

MEDICINE IN THE TIME OF QUEEN ANNE.—In a review of Mr. John Ashton's "Social Life in the Reign of Queen Anne," in a recent number of "The Nation," we find the following:

Medicine was mere empiricism. In the pharmacopœia given by Mr. Ashton were "live hog-lice," "man's skull," "leaves of gold," "stone of a carp's head," "frogs' livers," "white dung of a peacock dried," with many other remedies equally sovereign. It earned its

fee by purging and bleeding without stint. Its chief professors, whose skill, probably, like that of our spiritualists, was moral, made large incomes—incomes equal to at least \$60,000 or \$70,000 in our day—rode in coaches with six horses, and behaved themselves like pachas. Dr. Radcliffe, the most renowned of them, was sitting over his wine when he received a message from the Princess Anne, who had become somewhat hypochondriac after the death of her sister, desiring him to come at once to see her. He refused to go, and sent back a message that it was all fancy, and that her Royal Highness was as well as any one else. So Mr. Ashton decorously puts it; but the real message, according to tradition, was too coarse to be repeated to ears polite. This cost Radcliffe his appointment at court. When the Queen was dying, he was sent for; but the implacable old Turk answered that "he had taken physic, and could not come." There was an outcry against him at the time; in these days he would be torn to pieces. He was always saying the rudest things, and sometimes he met his match. He never would pay a bill without demurring, and he told a pavior who had been mending the pavement in front of his house and applied for the money, that he had done his work badly and covered it with earth to hide it. "Doctor," replied the pavior, "mine is not the only bad work that the earth hides."

Queen Anne, as we know from a passage in Boswell's "Johnson," touched for the King's Evil; strange to say, it appears that she did it in response to a Jacobite challenge to prove her legitimate royalty, and that the result was satisfactory to the public mind; so that the conditions proposed by Renan would seem to have been fulfilled by the performance of a miracle under critical inspection. On the part of Johnson or his parents there must have been a want of faith. With the treatment of children the medical faculty would not have deigned to concern itself. It was such that the race may be said partly to have owed its vigor to a process of natural selection, carried on through a most desperate struggle for existence. The young Duke of Gloucester, the heir to the Crown, having water on the brain, and finding himself unable to get up stairs without help, his royal parents, to cure him of his sickness, shut themselves up with him and gave him a good whipping.

THE eighth session of the International Medical Congress will be held in Copenhagen, from the 10th to the 16th of August, 1884.

THE CHEMISTRY OF THE ELECTRICAL ACCUMULATOR.—With the attention that is now directed to the storage of electricity, the following description of the chemical action of the Plante and Faure accumulator, as given in a German exchange, will not be without interest. If a plate of lead, coated with a little peroxide of lead, be placed in sulphuric acid, it will soon become covered with sulphate of lead, as a result of local currents between the peroxide and the lead, or by simple chemical solution, so that in Plante and Faure's battery the peroxide is gradually destroyed independently of the main current. This action takes place very slowly, because the sulphate of lead is deposited between the lead and the peroxide, and hence greatly diminishes the local current. If no sulphate of lead were formed, the peroxide of lead would soon be all consumed. The sulphate of lead is subsequently reduced by the hydrogen, forming spongy lead. By repeated charging, the quantity of finely divided substance increases. In a similar manner, if two electrodes that are covered with sulphate of lead be immersed in dilute sulphuric acid, and a current passed through them, one will become covered with spongy lead, the other with peroxide formed from the sulphate. The peroxide formed upon the positive lead plate of the secondary battery becomes covered with a comparatively impenetrable layer, which prevents the further production of peroxide; hence Plante leaves his battery at rest, which favors this formation of sulphate of lead. In this way all the sulphuric acid can easily be taken out of the solution. A considerable quantity of oxygen—more than half—will not be absorbed. According to Kabath, the interior plates of lead foil are rapidly crumbled, but the particles remain hanging between the outer plates.—*Scientific American*.

A TREATMENT FOR PARAPHIMOSIS.—M. R. O'Connor, M. D., writes to the "British Medical Journal" that about a year ago a child was brought to him suffering from paraphimosis. He could not reduce it

by pressure, and was about to cut the stricture, when he was struck with the idea of winding ordinary twine firmly and closely from before backward around the constricted portion of the penis, thus driving the exudation backward until he came to the stricture. On unwinding the twine, he found that the prepuce came forward without difficulty. It has since been repeated, always with success. There is very little pain attending the proceeding. [The procedure is not new.]

THE CLINICAL CHARACTERS OF TUBERCLE IN BONE.—Mr. W. S. Savory ("Lancet," Nov. 4, 1882) remarks that it is curious to see how many striking points of analogy there are between the progress and effects of tubercle in lung and in bone. In the first place, the cancellous texture of bone, which is the seat of tubercle, resembles strongly in physical characters the parenchyma of lung. The structure of both is aptly described as sponge-like, and the resemblance is still more striking when a mass of yellow tubercle occupies the substance of each. In both cases the spongy texture appears to be filled up and rendered solid by the infiltration of the caseous deposit. The resemblance further appears in the halo of inflammation or increased vascularity of varying width which so often surrounds the mass. Still further is the likeness shown in the mode in which the tubercle degenerates. The included tissue is broken down and destroyed until, either by the escape or disappearance of the tubercle, a cavity is left in the cancellous bone corresponding very remarkably to a vomica in the lung.

This likeness is still further extended by the relation of cancellous bone to the neighboring joint, and the relation of lung substance to the pleura. Just as pleurisy is so often set up by the disturbance of tubercle in the lung, so synovitis is often provoked by the disturbance of tubercle in the adjacent bone; and just as empyema is sometimes produced by perforation of the lung-wall and the escape of matter into the pleural cavity, so suppuration in a joint, which is too often destructive, is due to perforation of the articular wall of bone and the escape of matter into the synovial cavity. In either case urgent symptoms are apt to supervene suddenly on comparatively latent mischief.

The variable progress and effects of tubercle in the lung are often repeated with singular resemblance in bone. Just as in lung, so in bone, the history of tubercle is sometimes that of a single formation which passes steadily, with more or less rapidity, to destruction; sometimes that of several smaller ones simultaneously; sometimes, though more rarely, that of a number of successive formations which pass through their stages one after another, leading in this way to a gradually extending destruction of osseous tissue. So, again, there are in tubercle of bone phenomena very exactly corresponding to what Dr. Latham, in the lung and in the cervical glands, has described as mixed and unmixed phthisis. In one class, during the changes which tubercle, after its formation, is prone to undergo, there is only what may be called a necessary amount of inflammation excited in the surrounding texture, such as is just sufficient to accomplish the result of softening and expulsion, and which subsides as soon as this is effected. In another class the inflammation provoked spreads widely and deeply beyond this, and becomes much more severe and extensive than is needful for the mere elimination of the tuberculous matter.

The study of tubercle, if the difficulty would be adequately grasped, must be carried on throughout the whole field of medicine and surgery. For the largest purpose, the land to be explored must be common to both.

MANŒUVRES OF REDUCTION FOR INJURY OF THE SPINE.—Dr. Guérmonprez ("Union Méd.," Nov. 11, 1882) relates an interesting case of injury of the spine of doubtful nature in which the greatest relief was derived from manipulation of the injured part, and from extension and counter-extension. The patient fell several yards, striking first on the feet, and then on the buttocks, and had the usual signs of paralysis following injury of the lower part of the spine, together with the most excruciating pain in the lumbar region. This pain was relieved by firm pressure over this point, and more decidedly by extension and counter-extension. The most careful examination failed to reveal the exact nature and seat of the injury. On the day after the accident a fluid tumor of considerable size was found over the lower lumbar region. This was punctured in three places with a bistoury, and a large

quantity of blood evacuated. The patient progressed slowly, but steadily, toward recovery, and, after five months, seemed to be entirely cured. The case is important as showing the remarkable relief which may be derived from efforts at reduction in cases of injury of the spine, provided the efforts are not carried too far.

SPONGE-GRAFTING.—Dr. W. H. Thorndike and Dr. C. D. Homans, of the Boston City Hospital ("Med. Record," Oct. 7, 1882), report four cases of this treatment in different classes of wounds, the only four in which it has been tried at that institution; but the results have not been so remarkably satisfactory as some of those reported in the English journals. They conclude, however, that the treatment is useful in a certain limited class of cases, such as deep, circumscribed ulcers of the leg, which are often followed by adherent cicatrices which readily break down. In these cases the sponge forms a trellis-work through which the granulation springs up from the bottom of the wound, thus preventing the contraction from the edges. The sponges used in grafting should be perfectly clean and thoroughly carbolized. They should then be soaked in dilute acid until they become quite friable, in order that they may be absorbed more rapidly.

THE INVASION OF INANIMATE MATERIAL BY GRANULATION TISSUE.—Dr. C. B. Ball ("Dublin Jour. of Med. Sci.," Oct., 1882) reports four cases which he considers to be as marked examples of the invading of inanimate material by granulation tissue as is ever seen in sponge-grafting. The inanimate material consisted in the first case of a blood-clot, in the second the same, in the third a dry slough the size of a shilling, and in the fourth a large piece of superficially necrosed tibia.

In each of these cases granulation could be seen forming and extending into the foreign bodies; and, as the organization of blood-clot is by no means common, and is even denied by some authorities, the observations are valuable.

THE COUNTY SOCIETY AND THE STATE CODE.—At the January meeting of the Medical Society of the County of New York, forty members being present, Dr. Lewis A. Sayre offered a resolution instructing the society's delegates to the State society to vote for the repeal of the new code of ethics, and to work earnestly to secure such repeal. Dr. Jacobi moved to lay the resolution on the table. On that motion Dr. Sayre called for the ayes and nays, when thirty-one votes were given for tabling the resolution, and nine against it.

THE MEDICAL EDUCATION OF WOMEN IN RUSSIA.—The authorities in Russia are evidently not in favor of the medical education of women. The lecture courses at St. Petersburg have been closed by order of the Emperor, after an existence of ten years. The government has deprived the institution of its buildings, and maintains that the institution had not sufficient means to carry it on properly. Subscriptions were promised, but every obstacle was thrown in the way of their collection. The experiment of female practitioners has evidently been a failure in that country at least.—*Lancet*.

KAVA-KAVA.—This Fijian beverage, lately recommended for gonorrhœa, is thought by Mr. T. M. Kendall ("Brit. Med. Jour.," Oct. 21, 1882) to owe its good effect to its reducing the acidity of the urine. He has found it very useful in cases of enlarged prostate, and credits it with a beneficial action on the mucous membrane of the bladder.

CHOLERA EPIDEMIC.—The Spanish Government has received a telegram, dated December 28th, from their consul at Suez, announcing that cholera has appeared among the pilgrims at Mecca and Medina, and that deaths from the disease at the latter place number ten daily.—*Lancet*.

We understand that Dr. George M. Tuttle, of the State Immigrant Hospital, has been tendered the position of Adjunct Professor of Obstetrics in the College of Physicians and Surgeons, and that he will accept it.

DEATH OF DR. GEORGE M. BEARD.—This well-known neurologist died on the 23d ult., after a brief illness, of pleuro-pneumonia. The news reaches us too late to allow of any statement as to the circumstances of Dr. Beard's untimely death.

Lectures and Addresses.

A CLINICAL LECTURE ON EXOPHTHALMIC GOÏTRE.

DELIVERED AT THE HOSPITAL OF THE UNIVERSITY OF PENNSYLVANIA,

By WILLIAM PEPPER, M.D., LL.D.,
PROVOST AND PROFESSOR OF CLINICAL MEDICINE.

GENTLEMEN: I shall ask your attention to-day to an interesting and marked condition of exophthalmic goitre in the male. I shall first briefly give the history, and then ask attention to the pathology of this affection.

This man is thirty-two years of age; lives in Mifflin County, of this State; a teamster by occupation; has not worked very hard, but has been exposed to all kinds of weather; has been temperate in the use of liquor, but an immoderate consumer of tobacco, smoking almost constantly and chewing a great deal. He has had no anxiety nor nervous strain of any kind to impair his health; no venereal history. His family record is good; he had the common fevers of childhood, but since then has been well and strong, and not at all nervous. For the past ten years he has noticed a little shortness of breath on exertion, without cough and without any disturbance of urine. For the last eighteen months has been nervous, could not sit still, was constantly shifting his position, and could not fix his attention on any subject. With this there was increased shortness of breath. Sixteen months ago he had a bad fall, which made his condition worse. Nine months ago he observed that the right side of the thyroid gland was swelling. The left side began to enlarge one month later. The enlargement gradually increased. The eyeballs began to be prominent six months ago. Two months ago palpitation of the heart, which had existed to some extent before, became pronounced, and all the symptoms grew worse. He has not been able to sleep well, and his digestion is impaired. He passes large quantities of light-colored urine; he has also, for the past ten or twelve years, had a tendency to looseness of the bowels, having one or two stools of mush-like consistence each day. In June last, soon after these symptoms began, he had an attack of dysenteric diarrhœa, frequent stools mixed with mucus and blood.

The diagnosis of this case is perfectly simple. We have great rapidity of the heart's action (150 in the minute), irregular pulse, no organic murmur, slight enlargement of the heart, great increase in the size of the thyroid gland, which throbs, pulsates, is the seat of a thrill and of a strong murmur, and there is slight prominence of the eyeballs. He is nervous, pale, anæmic, and dyspeptic. These are the symptoms of exophthalmic goitre—that is, goitre or bronchocele with protrusion of the eyeballs. The latter symptom is not marked here. This disease is also known by the names of two men who described it independently of each other, but about the same time—Graves, of Dublin, and Basedow, of Germany. It is, therefore, often spoken of on the continent as Basedow's disease, while English writ-

ers call it Graves's disease. The name exophthalmic goitre gives two of the prominent symptoms. The three marked changes in this disease are cardiac derangement, which shows itself in rapid, irregular action of the heart, goitre, and prominence of the eyeballs.

Exophthalmic goitre is more common in women than in men. In a memoir on this subject which I read before the Medical Society of Pennsylvania, in 1879, I stated that out of sixty-eight cases of this disease fifty-six were females and only twelve were males; that is, the proportion is about eighty per cent. of females to twenty per cent. of males.

I wish to-day to speak more of the pathology and the treatment of this disease than of the symptoms, for I hardly think that you can make a mistake in diagnosis. The only conditions in which you might fail to recognize the affection are where a person with anæmia and some overaction of the heart has ordinary goitre; and in the early stage the disease may be overlooked from the fact that the thyroid enlargement is not great and the protrusion of the eyeballs not marked. Anæmia with ordinary goitre will be distinguished from the disease under consideration by the condition of the thyroid. In the former it is enlarged but firm, it does not pulsate, there is no thrill, and it is not the seat of a hum.

The pathology of this disease is now, I think I may say universally, recognized as dependent upon a deranged action, a deranged functional activity, or actual organic disease of the cervical ganglia of the sympathetic and the cardiac plexus of nerves. These nervous centers govern the action, the latter of the heart, and the former of the branches of the carotids; so that, the functional activity of these centers being impaired, there is a state of dilatation and overaction of those parts of the circulation which they control. This is shown in the heart by great excitement and irregular action, and a tendency to dilatation of the organ. It is shown in the branches of the carotid by excessive dilatation, especially of the thyroid artery, by the large amount of blood which passes through them, and by the pulsation and the local throbbing. Some have said that in this disease there is always organic lesion of the nerve centers which I have mentioned, but this is not true. There sometimes is, and it has been found on post-mortem, but I have made autopsies where it was absent; again, in so many cases the patients get well and the symptoms disappear that it is clear that organic disease of the nerve centers could not have existed. We must, therefore, say that while in some cases there is organic disease, a degeneration of the nerve cells or fibers, the affection is, in a greater number of instances, due to impaired functional activity dependent on depressing causes and not associated with any positive organic lesion.

The depressing causes which give rise to exophthalmic goitre are those which act directly upon the vaso-motor system of nerves—that is, causes of an emotional character, as sudden fright, severe shock, prolonged strain, anxiety, and care; but in a still larger number of cases the causes which give rise to the disease are the general depressing causes which impair nutrition, produce anæmia, and, with this, excessive sensibility of the nervous system. We are

all familiar with the nervous phenomena which manifest themselves in various ways in different persons as the result of depression, lowered tone, and advanced anæmia. More and more clearly do we recognize the dependence of the nervous phenomena on that state; so it is here; you will find that perhaps the most fruitful cause of exophthalmic goitre is a condition of deranged nutrition.

In the paper to which I have alluded I have reported some interesting cases, one or two of which I shall read.

"Miss A., aged twenty, although generally healthy, had always been exceedingly nervous. She had always been used to eating unwholesome food, candy, cake, sugar, with quantities of tea and coffee, and insufficient food of a plain, nourishing character. In the summer of 1876 she attended camp-meeting, was subjected to great excitement, and much exposed to vicissitudes of weather. Severe diarrhœa resulted, and was not checked. No attention was paid to diet or the avoidance of exposure. The stools were frequent, ten to twenty on some days, thin, whitish, and fetid. This condition became chronic. Soon afterward, in September, 1876, she noticed palpitation of the heart, with dyspnœa and enlargement of the thyroid gland. She grew weak, and lost flesh rapidly. She became extremely nervous and very lachrymose, so that she wept on the slightest cause. Her temper was not particularly changed, except that she became more petulant. Frequently an ordinary remark quietly addressed to her would cause a burst of tears. By Christmas, 1876, exophthalmus began, and rapidly increased until her eyes were very prominent. She continued in this condition, despite medical treatment, until October 20, 1877, when I first saw her. The diarrhœa had persisted, with the same character of stools. Menstruation had ceased five months previously. She had lost much flesh, her weight being scarcely ninety pounds, whereas fourteen months previously it had been one hundred and forty pounds. Her appearance was shocking on account of the extreme exophthalmus and the very large goitre. She was unable to close the eyelids. The action of the heart was constantly rapid, and frequently as high as 175 to 180. There was a soft anæmic cardiac murmur over the base. The thyroid gland pulsated very strongly, and was the seat of a strong, diffused thrill, and of a loud, shrill murmur. When the stethoscope was applied over the temporal fossa to the anterior part of the parietal bone on either side, a distinct, high-pitched murmur was audible. She made a rapid recovery, gaining sixty pounds in nine months."

Here is another good case: "Mrs. — was sent to me in August, 1878, by Dr. Birnie, of Maryland. She was about twenty-two or twenty-three years old, and had recently been married. From 1870 to 1873 she resided in an unhealthy locality, and there began to have occasional spells of feverishness, which was soon accompanied with diarrhœa. These attacks would usually last three or four days at a time. There does not seem to have been any fully developed malaria. After returning to her home, which was in a healthy mountain district, she continued to have spells of diarrhœa, with feverishness. She did not, however, lose much flesh or strength. In the spring of 1876, enlargement of the thyroid gland and prominence of the eyeballs was first noticed. At

that time she weighed one hundred and four pounds. In June, 1877, a severe attack of diarrhœa began, and continued until the following October. During this time she rapidly lost weight until she reached sixty-eight pounds. The enlargement of the thyroid gland and the exophthalmus also increased rapidly, and attained proportions as great as at any subsequent period. After the cessation of the diarrhœa in October, 1877, she began to gain weight, and during the ensuing winter reached one hundred and eight pounds. There was, however, no improvement in the condition of the eyeballs or of the thyroid gland. She continued weak, also, with marked excitement of heart's action.

"Diarrhœa returned in June, 1878, but for some time previously she had been losing flesh. By the time I first saw her, in August, she weighed less than seventy pounds. The character of the discharges in all the attacks of diarrhœa was similar—thin and watery, with particles of undigested food, but without either blood or pseudo-membrane. There had been very frequent complaints of pain at the lower part of the abdomen. In addition to the foregoing symptoms, there were for several years quite frequent and copious hæmorrhages from the nose. Menstruation had always been scanty and irregular, and lately had been absent for a number of months; it occurred twice in 1877, and three times in 1878. During the summer of 1878, œdema of the ankles frequently appeared toward evening.

"On examination, in August, 1878, her condition appeared very alarming; she was extremely emaciated and feeble. The immense protrusion of the eyeballs and the enormous enlargement of the thyroid gland gave her a shocking appearance. She was unable to cover the cornea, but no inflammation had occurred. Emaciation was extreme; her weight did not reach seventy pounds, and the skin and mucous membranes were bloodless and slightly sallow. The tongue was tremulous, red, and smooth. The appetite was capricious and somewhat abnormal. The bowels were moved frequently from four to eight times in twenty-four hours, the dejections being of the character I have described. The respirations were frequent, and increased by the slightest exertion. The pulse was weak, small, and frequent; in the sitting posture, it averaged 140. Exertion brought on severe palpitation. The heart sounds were sharp and feeble, with strong hæmic murmurs at the base and along the pulmonary artery. The carotids throbbed excessively, and the thyroid was the seat of strong diffused pulsation and thrill, with loud humming murmur on auscultation. No venous hum could be heard on ausculting the temples. There had been frequent epistaxis of late. The feet and ankles were œdematous. The urine was pale, of low specific gravity (1009–1010), but contained no albumin." The improvement in this case was steady and rapid. Menstruation became regular in March, 1879. In May, 1879, the thyroid was greatly reduced in size, she was bright and active, and her appearance was so much improved that she would not have been recognized by any one who had first seen her in August, 1878.

I want to call attention to the fact that, as regards the cause of exophthalmic goitre, we very often have no history of emotional disturbance, but only the ordinary causes of

deranged nutrition which induce anæmia and excessive nervous mobility. These are often associated with indigestion and the loss of good primary assimilation of food, usually from subacute gastro-intestinal catarrh. I have seen exophthalmic goitre follow, in a few weeks, a sharp attack of gastro-intestinal catarrh, but more frequently it comes on where there has been slight inflammation continued for a long time, and where the crasis of the blood has been gradually impaired and weakened. In this weak state any depressing cause will act upon the nervous system, inducing excessive nervous mobility and sensitiveness. This long-standing inflammation will also act as a source of reflex irritation upon the weakened nervous system and gradually induce a state of reflex paralysis of these centers. We are all familiar with the reflex paraplegia which follows long-continued cystitis, where the lumbar centers have been exhausted by the reflex irritation of a bladder in a state of chronic catarrh. We are all familiar with the various forms of paralysis coming on in cases where the nerve centers have been subjected to long-continued irritation from some peripheral lesion. In chronic intestinal catarrh there is long-standing irritation of the peripheral filaments of the pneumogastric and other nerves supplying the mucous membrane of the stomach and intestines, which, by reflex action, affects the centers with which these nerves are connected—that is, the cervical ganglia of the sympathetic and the cardiac plexus. This disease is frequently associated with gastro-intestinal catarrh. To this may be added irritation of the sexual organs; thus, in women we frequently find chronic ovarian irritation with chronic catarrh of the uterus. This may take the place of the intestinal affection. If it is associated with the chronic intestinal catarrh, we have, of course, a double effect of deranged nutrition upon a sensitive nervous system. You see an instance of this in the latter of the two patients whose history I have given. She had uterine catarrh, ovarian congestion, irregular menstruation, and chronic intestinal catarrh. No wonder that in such a patient there was such an intense development of all the phenomena of this disease. If this be true, if this be the history as regards cause, the indications as regards treatment are very plain.

It will at once be seen that this disease is not to be treated empirically, or by any single drug. You will find in many of your text-books, I am sorry to say, that this author recommends ergot; this one, the bromides; this one, digitalis; this one, iron, as a treatment for exophthalmic goitre. There could be nothing more irrational than this. We could not have a better disease than this to impress upon us the lesson that, long before we come to prescribe any drug in a chronic disease of this kind, we should study the individual peculiarities of that disease, and recognize what there may be about that patient in the way of bad hygiene to be corrected, bad habits to be abandoned, improper diet to be modified, unhealthy residence to be changed, or local irritation to be removed. While by giving certain remedies you may hold some of the prominent symptoms in subjection, you will allow the fundamental condition which produces the disease to go unchecked, and the patient does not get better. The only rational and successful way of treating any such condition as this is to first

study critically what can be done by hygiene, regimen, and diet, before we come to the question of what drugs can be prescribed with advantage. I may seem to dwell upon a self-evident proposition. If it seems so to you, let me dispossess your minds of any such notion. It is the hardest thing to bear in mind in practice. It is difficult for us to possess the incessant freshness of mind that when we see a new patient we shall enter into a careful study of these old, simple matters, and avoid being drawn into specific methods of treatment. A patient who had been under the care of a most excellent physician came to me this morning, and, when I spoke to her on this subject, she said: "Why, he never spoke to me about my diet. He laid no injunctions on me. I have taken enough medicine to fill a room, but I am no better." The question was solely one of diet, a case of gastro-intestinal catarrh, in which nothing but hygiene and diet would do any good.

In the treatment of this disease, the first thing to be done is, of course, to remove whatever local condition we may find. I should, in the first place, recommend absolute rest in bed, so as to place the nervous system at rest; to avoid exposure to changes of temperature and the like, and prevent all drain upon the nutrition until we have relieved the gastro-intestinal catarrh, and have rendered the alimentary canal capable of absorbing and assimilating food. This question of rest is an exceedingly important one. It need not in all cases be absolute. Rest, varied with a graduated amount of out-door exercise, is usually the ideal regimen. I shall allow this man to lie in bed twenty-two hours out of the twenty-four. He will walk out-doors for fifteen minutes every morning and afternoon, and spend an hour or two around his room.

In the next place, I shall put him on a carefully restricted diet. His present weight is one hundred and thirty-eight pounds; in February he weighed one hundred and seventy-five pounds. I shall begin with a diet such as this: In the morning, a glass of warm milk. For breakfast, fine ground hominy grits, with a little cream or milk, a glass of milk and hot water, and a bit of stale bread. At ten o'clock a glass of warm milk. For dinner, a piece of beefsteak, with stale bread and a little water—no ice-water. At three o'clock, a glass of warm milk. At supper, more thoroughly cooked hominy grits, with milk and hot water, and stale bread. At bed-time, another glass of warm milk. In the course of the day he will receive three small meals and four glasses of milk.

This man's tongue is a little coated posteriorly, and is denuded of epithelium. The gastro-intestinal irritation has lasted so long that I have no doubt that, if we could look into this bowel, we should find enlargement of the follicles of the mucous membrane, constituting a slight but extensive subacute intestinal catarrh. I know of no drug which compares in its beneficial action upon this condition of catarrhal irritation of the gastro-intestinal canal with nitrate of silver. I do not think that there is any drug to be mentioned with it. This condition of gastro-intestinal catarrh enters as a factor in so many different diseases that you frequently hear me prescribe nitrate of silver. I think that the more you use small doses of this drug in catarrhal con-

ditions the more you will value it. I have come to regard it as one of the most commonly needed, one of the most generally applicable, and one of the most precious remedies in existence. I rank it with opium, quinine, iron, and arsenic, as among the great resources of our art. If it is properly administered in varying doses, and different combinations, at different times and in conjunction with different forms of diet, results can be obtained which will, I think, gratify you the more, the more faithfully you use it. I shall give this man one fifth of a grain of nitrate of silver, with one tenth of a grain of powdered opium, in a hard pill-mass, made with a little gum tragacanth, three times a day, on an empty stomach; that is, about one hour and a half after one of those small meals before described. For the present I should recommend no other treatment.

When I find that his stools are solid and the food is properly assimilated, I shall use iron. This remedy is usually needed. Scarcely ever will you fail to find anæmia in exophthalmic goitre; consequently, you will find that iron in large doses often exerts a powerful effect upon these exhausted nerve centers in this as in many similar conditions, so that, even where the external evidences of anæmia are not prominent, iron in large doses has often a tonic effect upon the nerve centers. Of course, in proportion as actual anæmia exists its use is the more imperative. It must be administered with a due regard to the condition of the stomach and bowels, and an easily digested preparation must be employed. In regard to the preparation of iron to be selected, the experience of each practitioner, I suppose, dictates the form which he prefers. Some use the tincture of the chloride freely diluted; this is one of the most valuable preparations. Others use the pill of the carbonate; others, one of the soluble salts—as the lactate, the potassio-tartrate, and the citrate. The potassio-tartrate and the citrate are rather more apt to irritate the bowels than the pill of the carbonate or lactate, or even than the tincture of the chloride. Where there is considerable irritation of the mucous membranes, I know of no preparation of iron that is so acceptable as dialysed iron. Dialysed iron has been in the fashion, but is now forgotten; like all reigning favorites, it is soon deposed and a new one put in its stead. Three or four years ago every one was taking dialysed iron. As you know, it is prepared by dialysing a solution of a salt of iron through an animal membrane; the solution of iron being on one side of the membrane and a saline solution on the other, the acid is drawn from combination with the iron, leaving the latter, as near as may be, in its virgin state. It is exceedingly prone to change, and, when exposed, throws down a gelatinous precipitate. It is almost tasteless, does not act upon the teeth, and is very acceptable to the stomach. After it had been used to a great extent, question began to be raised as to whether it did any good; then, after everybody had been using it, everybody discarded it. I must confess that dialysed iron has given me excellent results. Read what I say in regard to it in the notes of the case of Miss A.: "After the diarrhœa was controlled, dialysed iron was given. All of her symptoms improved rapidly, and she gained flesh quickly. She soon wearied of the restricted diet, and about the middle of Sep-

tember she stopped all treatment and returned to a mixed diet. Diarrhœa soon returned, and she rapidly lost flesh; and all her symptoms—the cardiac excitement, goitre, and proptosis—again increased. On February 7, 1878, I saw her again, and directed a return to a similar diet, and to the use of silver and opium for a time, to be followed by digitalis and dialysed iron. The diarrhœa was again readily checked, and rapid improvement immediately commenced, and continued without interruption. The dialysed iron was increased gradually from ten to forty drops, and its effects were definite and gratifying. If suspended for even two or three days, she asserted that she missed its tonic influence. Her gain in weight was as follows: From February 7th to March 19th (forty days), from one hundred to one hundred and twenty-five pounds; from March 19th to June 20th (ninety-three days), from one hundred and twenty-five pounds to one hundred and forty-two pounds—a total gain from February 7th of forty-two pounds. She seemed to make blood and flesh so rapidly that at that time the dose of dialysed iron was reduced to ten drops. She increased to one hundred and fifty pounds in the course of six weeks, having gained sixty pounds in all within a period of nine months. There was a correspondingly rapid improvement in the nervous symptoms. She ceased to be lachrymose, and lost, to a great extent, the morbidly excitable, impressionable character she had before presented. Her color became healthy. The prominence of the eyes disappeared almost entirely before June 20, 1878, and, when I last saw her, December 14, 1878, it had not returned. The enlargement of the thyroid gland had also gone. By June no hæmic murmur could be heard over the heart, neck, or temple; and all pulsation, thrill, and murmur had gone from the region of the thyroid gland. Menstruation returned in May, 1878, after an absence of fifteen months, and subsequently continued regular. The pulse still continued somewhat too rapid, and was readily accelerated by any excitement. Up to December, 1878, she still continued a diet chiefly of milk and farinacea, with but little meat, and no tea or coffee."

I have seen such good results from the use of dialysed iron that I still continue to employ it where the gastric digestion is pretty fair. It is evident that this preparation requires to come in contact with some acid in the gastric juice which will form it into a soluble, assimilable salt of iron. It is probable that, in the cases in which it has failed, the stomach was in a deranged condition, so that the iron was precipitated and not formed into a soluble salt.

I shall, then, as soon as this man's bowels are in a good condition, give dialysed iron, in doses of ten drops in two ounces of water, three times a day after his milk. The dose of iron will be gradually increased to forty drops.

I come next to speak of the substances which are used for the control of the special symptoms of the disease. The first of these in value is digitalis, without which you will treat no case of exophthalmic goitre with complete success. It is given in the form of the tincture, or the powder in pill form, or the infusion of the fresh leaves, or as granules of digitalin. Digitalis prevents excitement of the heart, and indirectly allays nervous irritability and alleviates dyspnœa.

Ergot has been strongly recommended on account of its

influence on the muscular walls of organs, for we have here a tendency to cardiac dilatation, and dilatation of the blood-vessels, with weakening of their coats; but ergot acts directly upon the muscular elements of these parts, and not upon the depressed nerve centers which govern and control the circulation in them, while rest, good food, iron, and digitalis act more especially upon these centers, and are, therefore, more suitable than ergot. It has given good results in some cases. I, however, use it very rarely, and never resort to it until the deranged digestion is controlled; and even then it will often cause nausea and vomiting.

The bromides are very useful. There is an exaggerated mobility of the nerve centers; a lachrymose or even a maniacal tendency, and in general a perverted temper and exaggerated sensitiveness, which are indications for a sedative; so that the use of the bromides frequently forms an important part of the treatment. They may be combined with digitalis and ergot in the form of sodium or potassium bromide.

Lastly, I shall mention the importance of galvanizing the cervical ganglia of the sympathetic by passing a slowly interrupted, mild current through these glands. This may be used in conjunction with the other treatment.

I shall treat this man in the manner I have mentioned. I shall have the blood corpuscles counted, and in six weeks shall show you the result.

A LECTURE ON

THE FREQUENT REPETITION OF DOSES.

DELIVERED AT THE BELLEVUE HOSPITAL MEDICAL COLLEGE.

By A. A. SMITH, M. D.,

PROFESSOR OF MATERIA MEDICA AND THERAPEUTICS, AND OF CLINICAL MEDICINE.

GENTLEMEN: I propose to direct your attention this morning to the subject referred to at my last lecture, namely, the frequent repetition of doses. This subject is a very important one, and one regarding which it is very difficult to establish any arbitrary rules. In the case of chronic diseases, where it is necessary to continue the treatment for a long time, the plan of administering the medicine in larger doses at intervals of five or six hours is probably the best one which can be adopted. For example, if you were prescribing some preparation of iron in a case of anæmia, it would be unnecessary to give it oftener than three times daily. Again, in certain cases it may be desirable to produce the full effect of the drug at a single dose, as in the administration of a cathartic, or of quinine to reduce temperature.

In other cases, however, it is desired, in administering medicinal remedies, to keep up their continued effect, and the question arises, whether we can accomplish this purpose better by giving them in smaller doses at frequent intervals than by giving them in large doses at much longer intervals, the total amount of the drug in the end being, perhaps, the same in either case. It is a fact with which you are acquainted that certain drugs become absorbed and produce

their effect upon the system in a very short time, and they may also be eliminated very rapidly, while others act slowly and are eliminated after a longer interval.

It is not my intention this morning to deliver a scientific lecture; I shall make certain statements based upon clinical facts for which I shall not attempt to give any explanation.

The first drug to which I would call your attention in connection with the subject of the lecture is the chlorate of potash. It may not be unknown to most of you that this drug has at times been administered in sufficiently large doses to produce a dangerous inflammation of the kidneys. Special attention has been called to this fact by Dr. Jacobi, of this city, and also by other authors. This danger can be avoided by administering the drug in small doses frequently repeated. In writing the prescription, a teaspoonful of the solution may be made to represent as much of the drug as you wish to give; or, if it be in a more concentrated form, the patient may add water to it. Grain doses given every half-hour in scarlet fever, diphtheria, tonsillitis, etc., will produce the same results as larger doses, without the danger of the evil effects resulting from the accumulation of the drug in the system, as sometimes happens when it is administered in the ordinary way. Indeed, I believe they will produce better results upon the throat inflammations.

For the treatment of neuralgia, croton chloral has for a long time been given in large doses, as from five to eight grains, repeated every two hours, until fifteen grains are taken. But allow me to suggest what I consider a better mode of administering the drug—that is, to give a grain of it, prepared as you please, either in liquid or pill form, every half-hour until the neuralgic symptoms are relieved. A solution of which a teaspoonful represents a grain of the croton chloral may be made, having scarcely any of the bad taste which usually belongs to this medicine when given in large doses. I may here remark that one of the important advantages connected with the frequent repetition of doses is the fact that the medicine may be so largely diluted with water or other vehicle as to be rendered comparatively tasteless, and harmless to the mucous membrane of the stomach.

You will often be called upon to treat very obstinate cases of urticaria, and you will be put to your wits' end to know what to do. The plan ordinarily suggested is to give alkalies, as the bicarbonate of sodium, or magnesium; but, if you will give the patient two grains of the salicylate of sodium every hour or half-hour, you will usually be enabled to effect a cure even in obstinate cases, except those of a chronic nature. Two grains of the salicylate of sodium administered in a teaspoonful of water is almost tasteless, and may be given without producing disturbance of digestion. Urticaria is often caused by the administration of full doses of balsam of copaiba in cases of urethritis, or inflammation of other mucous membranes, and it may seem strange to you when I make the statement that a single drop of the same drug given every half-hour will sometimes control urticaria. I have no explanation to offer, but I make the statement not alone upon the authority of others; I myself have often observed the efficacy of the treatment, although not so frequently as in the treatment by the salicylate of sodium.

Fowler's solution, or the liquor potassii arsenitis, half a drop given every half-hour for six or eight doses, will often relieve the vomiting which occurs after a debauch. It will also relieve the morning vomiting of drunkards, and is of decided benefit in the sympathetic nausea and vomiting of pregnancy.

Jaborandi has been given in large doses with a view to exciting perspiration in cases of Bright's disease, but the very serious objection has been found to its administration in this manner, that it sometimes has a very depressing effect upon the heart's action, resulting in some cases fatally. Now, five- to ten-minim doses of the fluid extract of jaborandi given every hour or half-hour will produce marked perspiration without causing any unpleasant effects upon the heart. I sometimes combine with the jaborandi the tincture of digitalis, with a view to counteract any possible evil influence which the former drug may have upon the heart. So dangerous do I consider large doses of jaborandi that I often hesitate long before administering it, especially in the uræmia of the puerperal state.

You will please remember that the amount of the medicines administered is not so small as you may at first suppose, especially if you take into consideration their strength and the frequency of their repetition.

The next preparation of which I shall speak is a solution of the sulphate of atropine, one one-hundredth of a grain in a goblet of water, a teaspoonful of which shall constitute a dose, amounting in all to about sixty doses. Now, you will often be called to see cases of supposed croup, but which, in the majority of instances, prove to be cases of false croup of a reflex origin. Ordinarily, you will be able to relieve these patients by giving them a teaspoonful of this preparation every hour. It is possible the remedy acts slightly as a stimulant of the respiratory center; it is also possible that it has some influence upon muscular contraction or relaxation; at all events, clinical experience proves that it is of benefit in these cases. The dose may be repeated every hour or half-hour, according to the severity of the attack. If the child's face begins to flush and show signs of the physiological effects of the drug, the dose can be reduced in frequency. It should be remembered that when thus administered the equivalent of a full dose of the drug will soon be reached. Do not forget in these cases to give an emetic if there is anything in the stomach which may be causing the spasm, or a cathartic if there be reason to suspect intestinal disturbance as the cause.

The bromides are largely used in the treatment of the nervous and febrile disturbances of children, but an objection to them is the fact that the little patients do not take them readily, because of the taste; the bromide of sodium is, perhaps, as little disagreeable as any of the preparations. This objection can be avoided by giving small doses frequently repeated; for instance, a few grains dissolved in half a tumblerful of water, a teaspoonful representing a half-grain, or a grain even, administered every ten or fifteen minutes. When given in this manner, the bromides often prove of great benefit in the nervous disturbances arising from dentition and other causes, and in relieving the fever which, in children, usually attends a slight degree of excitement of any kind.

I have seen an elevation of the temperature in children where it could not be traced to any other cause than the excitement incident to their afternoon play. A temperature which might indicate a sickness of considerable gravity in the adult, if it occur in a child may be of comparatively little importance. In such cases the bromides, administered in small doses, say a grain or two at intervals of ten or fifteen minutes, will often prove of great benefit.

I began the use of some of these remedies administered in this manner on the recommendation of others, and I must say in a somewhat skeptical frame of mind, thinking that the effect which they produced was probably due to the moral influence upon the patient, or that it had no foundation in fact, it being a mere coincidence that the drugs were administered at a time when the patients would have recovered in the absence of any treatment; but, having seen benefit follow their administration repeatedly, I concluded they must have a wider range of usefulness, and began to use them much more frequently.

You will often meet with children of a nervous, excitable frame of mind, who are, perhaps, naturally of a sensitive, nervous temperament, who are disturbed by the slightest noise, and are unable to go to sleep before ten or eleven o'clock at night. In such cases you will find it necessary to give a nervous sedative. An excellent effect will be produced by chamomilla in some one of its forms, as the tincture, administered in minim doses, every fifteen or twenty minutes. It is tonic as well as sedative. It is a better sedative in such cases than the hydrate of chloral, which is liable to affect the digestion. It is harmless when given in larger doses. Put a teaspoonful into a half-tumblerful of water, and let the child drink it freely.

One of the most important remedies which can be administered with great benefit in frequently repeated doses is ipecac. You are aware that a teaspoonful of the syrup of ipecac is likely to produce emesis; but it is also a fact, regarding which I was at first quite skeptical, that a single drop of the wine of ipecac will often arrest obstinate vomiting. It should be repeated every ten or fifteen minutes. When administered in this manner, I have often known it to relieve vomiting from different causes, among which are pregnancy and subacute gastritis. Children often vomit from very slight causes, and are liable to suffer from diarrhœa and vomiting which have no other assignable cause than disturbance of digestion. A single drop of the wine of ipecac, repeated every fifteen or twenty minutes, will often produce the most marked relief, both from the vomiting and from the diarrhœa. Administered in this manner, the drug is not nauseous, and is easily taken.

I now make a statement, upon the authority of Trousseau and his enthusiastic successor, which may appear to you, as it once did to me, incredible—viz., that one sixtieth of a grain of calomel taken every hour for ten or twelve hours will relieve the headache of syphilis occurring at night. I have administered it in one-fortieth-grain doses in this manner and have obtained the results which they claimed for it, but I have not yet tried it in sixtieth-grain doses. The relief was very marked by the second or third night. It is not intended to take the place of iodides which are given in such cases.

Doubtless the calomel, when administered in such small doses, is all taken up into the system.

Nursing children often vomit or regurgitate their food; this has been relieved repeatedly in my experience by giving them a teaspoonful of a solution of one grain of calomel to the pint of water every ten or fifteen minutes. In order to dissolve it, the calomel should first be put into an ounce of lime-water, and then into the pint of pure water. One twenty-fourth of a grain of mercury with chalk, administered every fifteen or twenty minutes, is often of great benefit in the vomiting and non-inflammatory diarrhœa of children. Where the diarrhœa is accompanied by mucous passages, indicative of a certain degree of inflammatory action, or enteritis, benefit will be derived from the administration of one teaspoonful of a solution of bichloride of mercury (corrosive sublimate), one grain to the quart, every hour. The dose may seem very small, but it must be remembered that the dose for an adult is only one sixtieth to one thirtieth of a grain, and, when administered in this manner, the full dose for a child is reached within a few hours.

Another extraordinary statement, which at first seemed to me to be fabulous, and may seem so to you, but which, nevertheless, you will find to be based upon clinical facts: Put a grain of tartar emetic into one quart of water; teaspoonful doses of this solution every half-hour will prove effectual for the relief of the wheezing and cough accompanying a slight bronchitis in children.

A single drop of the tincture of *nux vomica* given every ten minutes will often produce most marked relief in sick headache not of a neurotic origin. It should be given immediately after or soon after meals.

It is well known that cantharides, when given in large doses, is liable to cause inflammation of the urinary tract; but it has been found that a single drop of the tincture every hour will in many cases relieve vesical catarrh.

You probably have heard that *digitalis* has been used in cardiac disease. Certainly if you have not heard of it you will, and, if you have already heard of it, you will hear of it again, particularly at the clinics. Ordinarily, it is administered in considerable doses only three or four times a day; but I do not hesitate to say that the frequent repetition of small doses will produce much more benefit than larger doses at longer intervals. A single drop of the tincture of *digitalis*, given to a patient suffering from symptoms due to organic heart disease when *digitalis* is indicated, administered at intervals of an hour or half-hour, according to the severity of the symptoms, will often give greater relief than larger doses, and without liability to ill effects.

For the diarrhœa of children, accompanied with slight inflammation, straining, and the passage of jelly-looking matter, but not true dysentery, five drops of castor-oil, given every hour in water with sugar and gum, is an excellent remedy.

A gentleman in this city, of authority in the specialty of venereal diseases, says he has given greater relief in a short time, in cases of orchitis and epididymitis, by the administration of two-minim doses of the tincture of *pulsatilla* every hour than by any other mode of treatment. I can testify to the great benefit derived from the drug ad-

ministered in this manner in dysmenorrhœa not of a membranous, obstructive, or neuralgic character.

One of the most distressing symptoms from which many women suffer at the menopause is flatulence, and a sensation of fluttering or palpitation at the pit of the stomach, an effectual remedy against which is the extract of calabar bean in one-fiftieth-grain doses, repeated every half-hour for six or eight doses. It may be repeated in the same way after stopping it for three hours.

In cases of amenorrhœa not dependent upon anæmia, benefit may be derived from minim doses of the fluid extract of ergot administered every half-hour for five or six hours the day before the flow should begin, and again on the day on which it should occur. Contradictory as it may seem, when administered in the same manner the fluid extract of ergot is of benefit in cases of excessive menstruation.

Aconite is one of the drugs to which you will probably have occasion to resort frequently when you enter upon the active practice of medicine. It has for a long time been used in quite small doses, but not so frequently repeated as it might be with benefit. There are many cases of febrile movement, with dry, hot skin, a full, bounding pulse, the mucous membrane of the throat and nose probably dry—cases in which the febrile movement is not the commencement of one of the continued fevers; the tincture of aconite, one third to one half a minim given every fifteen minutes, will be found of decided benefit. Visiting the patient shortly after the commencement of this treatment, you will often find him in a little perspiration; the medicine may then be administered at longer intervals, every half-hour or longer, according to the indications. The tincture of aconite, administered in a similar manner, is also useful in cases of commencing so-called cold in the head. It is likewise useful in cardiac hypertrophy with palpitation, severe headache, and disturbances of the nervous system due to increased force of the heart-beat.

Two minims of the tincture of *hamamelis* every half-hour will often control hæmorrhages. I was at first inclined to look upon this statement with a great deal of distrust, but I have since tried it in cases of hæmorrhage from the nose, from the uterus, and in the hæmorrhage from hæmorrhoids, and have found it of great benefit.

The tincture of *belladonna* in minim doses, given every half-hour, is a good remedy in cases of nasal catarrh, and bronchitis accompanied by free secretion. You should cease to give the drug for a while after eight or ten doses have been administered, as it is less quickly eliminated from the system than the other medicines of which we have already spoken. In cases of pulmonary œdema with failure of heart power, *belladonna* thus administered is of benefit in retarding the exudation of serum, and in overcoming the failure of heart power.

Two grains of the chloride of ammonium, combined with ten or fifteen minims of the tincture of *cubebs*, given every half-hour, oftentimes controls acute pharyngitis and superficial inflammations of the other tissues about the throat. For inflammation of the throat dependent upon a gouty diathesis, add to this mixture ten minims of

the ammoniated tincture of guaiac, and administer every hour.

In the headache of migraine, one grain of the citrate of caffeine given every half-hour will often produce most marked relief.

In neuralgias about the face or head, three-minim doses of the tincture of gelseminum every half-hour will often act almost miraculously and leave no ill effects.

For certain kinds of headaches (especially those which are periodical and not of malarial origin), fifteen-minim doses of fluid extract of guarana given every fifteen minutes will very frequently relieve. If it does not relieve in four doses, increase the dose to thirty minims.

Original Communications.

ON EYE TROUBLES WHICH MAY BE ERRO- NEOUSLY ATTRIBUTED TO LESIONS OF THE BRAIN AND NERVOUS SYSTEM.*

By HENRY D. NOYES, M. D.,

PROFESSOR OF OPHTHALMOLOGY AND OTOLGY IN BELLEVUE HOSPITAL MEDICAL
COLLEGE.

MR. CHAIRMAN AND GENTLEMEN OF THE SECTION: The remarks which I have to offer this evening, and which are presented at the request of our chairman, are hastily thrown together, and are simply the expression of views and opinions long matured in my own mind. They will be illustrated by a few cases bearing upon special points. The connection which subsists between diseases of the eye and other parts of the system, especially the nervous system, is coming to be more thoroughly appreciated since the ophthalmoscope has proved its capability of giving us more extended information than relates to the eye alone.

This instrument has been employed extensively in the hands of neurologists and general physicians. What I have to say is in no sense to its disparagement; on the contrary, it should be used more freely than at the present time, both in the hospitals and general practice. But my remarks are intended as a caveat, to assist the general practitioner in avoiding mistakes, viz.: First, that of attaching to certain things seen in the eye more importance than they deserve; and, secondly, I propose to call your attention to a considerable class of cases in which functional disturbances are sometimes mistaken for difficulties of the nervous system, whereas they originate from the eye. When we look for evidence in the eye of a diseased condition of the optic nerve, we note its color, its transparency, its definition, etc.; and we note the retina, as to its transparency and condition of its blood-vessels.

Now, the optic nerve varies, to a degree which is not properly appreciated, as to its shade and color; and if we were to draw inferences from its vascularity, in reference to possible trouble of the brain, we would be very likely to fall into error. The truth is, that acute inflammations of the

brain do not quickly exhibit themselves in the optic nerve; when they do, the trouble usually lies at the base of the brain, as meningitis or fractures. On the contrary, the brain troubles which make themselves known in the optic nerve are mostly chronic lesions. If, therefore, one sees an intensely reddened optic nerve, it is essential that some other symptom be found before it can be assumed to betoken other trouble behind. This redness is seen much more often as the result of straining or irritation of the eye, or as a congenital defect in the eye, than as a disease of the remote tissues. An important change in the optic nerve, and which is often significant of brain disease, is swelling. We all know the relation which choked disc bears to cerebral tumor, and yet the optic nerve may have a perceptible degree of swelling, and its border be indistinct, and not indicate any cerebral lesion, but simply stand for an anomalous condition of the nerve itself.

Upon the edge of the optic nerve is not unfrequently seen a bright, white, opaque, striated surface, running out into the retina, which might be mistaken for an exudation. I remember when I committed that error. The appearance is by no means unfrequent, and is explained by the fact that the optic-nerve fibers have not lost their neurilemma as they pass over upon the retina. This is congenital, and makes little or no difference in the degree of vision. On the other hand, the optic nerve may be very pallid, and the vessels of the retina small, the nerve surface being slightly excavated. This pallor of the nerve and reduction in size of the vessels might be supposed to indicate atrophy; but it is simply indicative of the general poverty of the circulation and anæmia of the patient, and not due to any lesion of the nerve fibers.

There are many singular and anomalous conditions, which make their appearance in the optic nerve, which are familiar to the ophthalmic investigators.

I might here, perhaps, be permitted, without any breach of propriety, to quote a letter received last summer from an ophthalmic surgeon of Great Britain, which he wrote me in relation to a man whom he and I had treated, and from whom I was obliged to remove one eye because of a tumor. Before the tumor was fairly developed there was a detachment of the retina.

June, 1882.

Dr. H. D. NOYES.

DEAR SIR: Many thanks for your kind and instructive notes about the patient, P. When I first saw him, about a year ago, he had well-marked separation of the retina in the lower part of the fundus, which soon after extended over nearly the whole of the retina, leaving only a small chink at the inner aspect, giving a reflex with the ophthalmoscope; about six months ago the vision of the right eye became defective, accompanied with spectra and other objective symptoms of an anomalous character, followed by well-marked engorgement of the disc. Under treatment, the eye slowly recovered, leaving the optic nerve somewhat congested. During the whole time he was under observation there was no external inflammation, and no increase of tension in either eye. From the appearance of the right optic nerve, and the peculiar mental state of the patient, I supposed that there was some intracranial mischief, probably tumor of the brain.

Yours truly,

* * * *

* An abstract of remarks made before the Section in Practice, of the New York Academy of Medicine, January 16, 1883.

The point that I wish to bring out is this: That an experienced observer saw appearances in an eye which he regarded as an indication of inflammation, and, from other symptoms, he felt convinced there was intracranial trouble. The peculiar appearance of the patient's eye was fully explained by its refractive condition; he had a high degree of hypermetropia and astigmatism. After he had been furnished with suitable glasses, his vision became nearly normal, and he was able to go home, all of his strange mental symptoms having disappeared as soon as the difficulty of his vision was relieved. And this optical error had not been observed by the gentleman who had previously treated this man.

These are some of the objective errors of the eye, as, for convenience' sake, I have designated them; but, putting these aside, there is a series of symptoms of a subjective character which are liable to be mistaken for trouble of the nervous system—such as spasm of accommodation and trouble of the external muscles of the eye, astigmatism, and hypermetropia. This has been dwelt upon by several observers, especially by Dr. Weir Mitchell, of Philadelphia. The cases of error in the refraction, so far as subjective symptoms are concerned, are essentially the same as those of spasm of accommodation without refractive anomaly. The class of cases which I am now signaling are those in which the patient makes but little complaint about trouble of the eye, and in some cases makes no complaint whatever. In the mind of the patient the emphatic symptom is something foreign to the sight, and he succeeds in impressing his idea upon the physician.

The first and chief symptom in these cases is headache, the headache being of any possible variety and of any possible degree—frontal, temporal, occipital, at the vertex, or it may be confined to one side of the head, although this is rare; this headache may or may not be on using the eyes; it may commence on waking in the morning, or be increased by mental labor. Sometimes connected with this headache will be another symptom, which seems still more significant, which is nausea. It is not uncommon for both to be associated together, and, while nausea is not constant, headache will be persistent. There may be giddiness, mental oppression, rarely palpitation of the heart, and numerous vague symptoms, according to the impressibility of the patient.

Suppose, now, that the physician thinks it his duty to look into the eye, to see if any inflammation may be there, and finding in one optic nerve congestion, and in the other congestion with opacity of its structure, he might be led to think that this was a case of chronic meningeal trouble, and that this was verified by the extreme hyperæmia found in the nerves; and that this conclusion was re-enforced by an appearance of exudation. Yet this condition is to be otherwise explained, and these appearances may be owing only to hypermetropia with eye-strain, and the headache, etc., be due to this strain. These same symptoms can make their appearance without there being a refractive error, and I shall take the liberty of quoting further letters, as they illustrate the way in which they present themselves:

NEW YORK, December 15, 1882.

Dr. H. D. NOYES.

DEAR SIR: I should be very happy to have your opinion about the state of the eyes in this young lady's case. It seems to me that there is a slight spasm of the internal recti muscles (as the eyeballs do not roll out completely), which contributes toward the development of certain head symptoms. She complains of a permanent vague distress in the upper frontal region; a feeling of strangeness on seeing a mass of people together; sometimes of surprise on watching even a single person pursuing his ordinary avocations; dislike to look into a person's eyes; there is a loss of sleep, inability to fix the attention, sense of mental fatigue, frequent feeling of grotesqueness and strangeness, "as if she were not herself"—all indicating considerable disturbance of the psychic sphere, which I presume lies beyond the range of influence of the eyes, yet not, perhaps, altogether. There are hysterical convulsions; four years ago the patient had a transient goitre; later, a fall on the end of the spine, at which point there is now much tenderness on pressure, and has been much spontaneous pain. Nevertheless, present symptoms only date from the first of last September, after a month of continuous sea-bathing. Menstruation has been slightly delayed; there is no trace of uterine or ovarian trouble (examination has been made). Three possibilities present themselves to me: 1. Irritation of central nervous system from hyperæsthesia of Luschka's ganglion at coccyx, and spasm of internal recti as one symptom of such central irritation. 2. Exhaustion of nervous system from over-stimulus in sea-bathing—spasm of recti, thence cerebral symptoms. 3. Cerebral symptoms directly dependent on such exhaustion, and independent of ocular disturbance, which, so far as I can ascertain, is very slight.

Very truly yours, * * *

This evidently was a mixed case; but, upon critical examination, a large part of the apparent mental and cerebral disturbance with which this patient was afflicted was found to be due to intense spasm of accommodation; examination by the ophthalmoscope disclosed that there was an almost entire absence of refractive error, and that the myopia which seemed to be present was apparent and not real. Atropine has been freely and vigorously used up to the present time without wholly relaxing the spasm of accommodation, the origin of the spasm being remote, and may be due to an injury of the spine.

I have seen not a few cases where serious eye trouble has been dependent upon an affection of the spine, involving both the extrinsic muscles and spasm of accommodation. In another case, to which I beg to call attention, the principal trouble was not found in the error of refraction or spasm of accommodation, but in disordered muscular apparatus of the eye.

Dr. NOYES.

DEAR SIR: To-morrow will call upon you a Miss —, to consult you for a strabismus which I believe is congenital. Some years ago she saw Dr. — about it, who did not advise interference; the matter, however, to me seems of considerable importance, for the following reasons: During her teens, and until nearly twenty-five years of age (the patient is now thirty-two), she suffered extremely from violent headaches, and it is a question with me how far these may have been determined by the strabismus.

Three years ago she had, for the first time, an attack of melancholia—insanity—of a few weeks' duration; and another, lasting longer, last spring. The last attack followed immediately

upon a fall, in which she struck the back of her head violently. I saw her in this attack for the first time, and made a diagnosis of "primary curable dementia," directly induced by the concussion of brain, whose nutrition was impaired probably in various ways.

The girl is chloro-anæmic, with a very marked murmur in the carotid and at the base of the heart; and there is probably also lithæmia. Undoubtedly she must have had some individual predisposition to mental disease, but it does not seem to be hereditary. At present, she is merely in a condition of some mental debility ("psychische Schwäche") consecutive to the attack in the spring; but complains of many uneasy sensations in the head, indicating (I think) rather directly impaired nutrition than congestion. She has had hallucinations of hearing formerly, which seemed to originate in the roaring and buzzing in the ears, of which she now complains; and, similarly, she seems to be always on the brink of hallucinations of sight, which seem to originate in the difficulty, as she expresses it, of "bringing her eyes to a focus." What is especially important for the moment is, that she can not use her eyes without pain, and the enforced leisure is extremely hard for her mental health. This pain you may attribute to the strabismus, or also to the impaired nutrition of the base of the brain, for which I have now just begun to treat her. But I should very much like your opinion on this point. If you advise operation for the strabismus, they are quite ready for it. I have written at this length because it is desirable for you not to interrogate either mother or daughter as to the mental symptoms, about which they are both sensitive, and yet, of course, you should be acquainted with them.

Very truly yours, * * * *

This case was one in which the symptoms were particularly emphasized, and were, in large measure, to be attributed to the condition of the eye. An operation for the strabismus was performed with very satisfactory results, both as regarded her health and the use of the eye.

This subject of the irritation which can be caused by the disturbances of the ocular muscles is one which has been debated considerably among eye surgeons. There is a variety of opinions, not in respect to the possibility of the disturbance of the nervous centers, through the debility of the ocular muscles, but upon the *degree* of influence which this condition exerts. But, while there are exaggerated assertions in respect to this matter, I am sure that the muscles of this eye, in the case just mentioned, exerted a far greater influence upon the health than is for the most part allowed to them.

As an illustration as to how the symptoms dependent upon strain of eye-muscles are expressed by a patient, I took pains the other morning to have a little girl, fourteen years of age, tell me, as completely as she could, the symptoms under which she suffered. She was brought to me by her mother, who said that the girl, for three years, had been complaining of severe headache, all treatment having been ineffectual. The mother was doubtful in her own mind whether to consult an expert on the eye, or one upon nervous diseases. She was, however, led to consult an oculist, by a friend who had been relieved of headache by the use of glasses. Symptoms in this child were as follows: When she looked hard at people, they seemed to go away from her; she has headache several days in the week, and will awake in the morning with it; she not only reads and

studies a good deal, but she keeps herself thus employed for the purpose, as she expressed it, "of forgetting the headache"; no tenderness over cervical vertebræ; a jar or blow upon the head was unpleasant; faints easily from pain; to all appearances the child seemed to be healthy; there was slight tenderness over the supra-orbital nerve on the right side; in church the minister seems to go away from her; occasionally there has been nausea.

I tested her with the usual tests for difficulties of the ocular muscles, and the usual phenomena which we rely upon by prisms failed to indicate any important muscular error; but, when the child was asked to look at the finger held close to the face, it was difficult for her to keep both eyes upon the object, and, if one eye was covered, the other eye would deviate several lines. Diagnosis in her case was: extreme debility of the internal recti muscles, which, with accompanying spasm of accommodation, had given rise to the persistent headache.

The symptoms which persons give are not only of nausea, headache, and inability to look fixedly at objects, but of dizziness and mental oppression. In young subjects the accommodation is so great that their attention is not attracted to any connection which may subsist between the headache and the eye. Such, in brief, is a statement of this class of cases.

Now, how are the cases to be recognized, and how are these errors to be avoided?

In the first place, objective errors, which may be recognized by the use of the ophthalmoscope, require a sufficiently large experience in its use in order that the surgeon may fully appreciate both normal and abnormal conditions; but more important than this is that the instrument should not be employed in one method only—that is to say, by the indirect method, where the lens is held in one hand and the instrument in the other; that method is incapable of giving adequate information; it gives you a view of the bottom of the eye, but not of the refractive state of the eye; therefore, the best method is by what is called the direct method, or upright image, in which the instrument has to be supplied with glasses to correct the optical errors of the patient, and by which you can tell whether its condition is normal or abnormal, as far as refraction goes. Then, in addition to this, there must be an examination of the quality of sight, by proper test types, aided and carried to completeness by a spectacle box; and, finally, under suitable circumstances, resort to the use of atropine.

If you are to examine a patient who may develop some notable disease of the brain, and who may in consequence ultimately lose his sight, the use of atropine should be avoided, as the application of the atropine would be very liable to be remembered by that individual, and he might attribute his loss of sight to its use. Therefore, if you do propose to use atropine, and there is any reason to suspect brain trouble, it is proper to notify the patient that no ultimate detrimental result will follow its use. It, however, is not necessary in the large proportion of cases to use atropine in your examination where there is reason to believe that there is brain trouble. On the other hand, taking the cases where the symptoms are of a functional or subjective kind—nausea,

headache, and such symptoms as have been described, and there are no other well defined evidences of brain lesion—then atropine may both relieve the symptoms as well as clear up the diagnosis; it does frequently remove the headache, although it is only temporarily; afterward, the refractive errors are to be corrected by suitable glasses. The degree to which these subjective symptoms make their appearance varies according to the temperament of the person and their natural susceptibility. It will be found that those persons suffering from exhaustive conditions of a chronic character are more susceptible; especially is this the case with those suffering from uterine disease.

If it be a muscular error, the treatment consists in rest and the suitable employment of prismatic glasses, with proper attention to any of the remote discoverable lesions which may have an influence in producing this trouble. Sometimes these muscular and refractive errors are combined, so much so as to make the prescribing of suitable glasses extremely difficult.

[In reply to various remarks made in the discussion, Dr. Noyes spoke as follows:]

MR. CHAIRMAN: In my reading I omitted two or three things, for fear of saying too much. Now, in reply to the different remarks upon the same, I would say that, in reference to the pathology of cases of muscular trouble, we have to remember that the nerves which are at fault are the third, fourth, and sixth, all of which cluster, in their origin, at the medulla oblongata. This central spot makes them easily the agents of transmission for causes which may proceed either from the cerebrum or cerebellum, or from the spinal cord.

The cases which I have cited are of a very marked type, chosen purposely to exhibit their most decided features. Many others exhibit fewer and less impressive symptoms; and, of course, with many persons the complaint has respect only to functions of the eye. These last would naturally not cause any mistake in diagnosis. As to the curability of the cases under consideration, I may put the matter as follows: I might present a very large list of persons who have been perfectly relieved of all their symptoms, both local and general, by the adjustment of glasses of various kinds adapted to both refractive and muscular faults, or by the performance of operations on the ocular muscles—and I mean this statement to apply to those in whom the general symptoms have been predominant, i. e., headache, etc. Another category will include persons who have derived a considerable degree of relief from ocular treatment, but who have not been entirely cured. This will embrace very many persons who are either in reduced general health, or have some chronic ailment, or are of a neurotic temperament. To such persons the benefit afforded is often very important, inasmuch as the function of sight and enjoyment of vision have such controlling importance over everybody's happiness. In them correct and judicious eye treatment means much, although it can not pretend to cover the entire case. Necessarily, the degree of value in the eye treatment will be variable. There are other cases in which general symptoms take precedence above eye symptoms, and the attempt to do good by relieving the latter, will be futile. Or the true

mode of relieving the eye troubles will be to improve the general health, to abate or control a neurotic tendency, to get rid of chronic diseases, to lighten the burdens and sorrows of life, etc. It is needless to dilate in this direction. My aim has been to call attention to a class of cases in which the local difficulties simulate and suggest other lesions, but are in themselves the essential part of the disturbance.

NOTE ON THE USE OF

CONVALLARIA MAIALIS.

By BEVERLEY ROBINSON, M. D.,

PROFESSOR OF CLINICAL MEDICINE IN THE BELLEVUE HOSPITAL MEDICAL COLLEGE.

DURING the past three months I have made use of the fluid extract of convallaria maialis in quite a number of cases of chronic cardiac disease. In it I recognize a new cardiac tonic of considerable value. It should be approximated in its therapeutic effects with those of caffeine and digitalis. Not that it resembles closely in all its properties these well-known drugs, but because it is analogous to them in having an appreciable stimulating effect upon cardiac power. When the fluid extract of the root of convallaria has been given in suitable doses (five to ten drops every two or three hours) to patients in whom cardiac incompetency is already apparent, in view of the rational symptoms of dyspnoea, oppression, localized pain over the præcordia, and palpitations, it will aid in diminishing these phenomena in a notable degree. When we have, in addition to these functional symptoms, the ordinary physical signs of cardiac disorder, such as weak, rapid, and irregular pulse; tumultuous, unequal heart-beats, with a blowing murmur at one or other orifice; œdema of the lower extremities, with more or less serous effusion into the large cavities of the body—we shall also be able to remark a certain amount of benefit arising from its use. Thus, the pulse becomes stronger and more regular, the heart-sounds acquire additional force, and the painful palpitations disappear. Dyspnoea is often favorably modified, and the respiration becomes slower and deeper. Anasarca is not usually much influenced by the exhibition of this drug, and the urine is scarcely if at all increased in quantity, nor are its solid constituents manifestly modified in their eliminated quantities. Usually the stomach accommodates itself well to the use of this drug, and in those cases where I have observed intolerance following its exhibition I have attributed the nausea, or rejection, to beginning uræmic condition.

While I believe that this drug has some power in controlling cardiac action, I am of opinion that this is exercised mainly through the pneumogastric nerves, and not upon the muscular fibers directly in any considerable degree. This view appears to me to be sustained by its obvious effects in diminishing the intense dyspnoea of asthma, and in quieting palpitations in a remarkable manner. I have not found that convallaria restored rhythmic action to the crippled heart in a degree sufficient to make it in this regard a co-equal substitute of digitalis, nor am I convinced that it is the peer of digitalis in adding to cardiac contractility. Over

digitalis, however, it has apparently *one* very great advantage—viz., it does not in man, at least, and in the doses mentioned above, take on cumulative effects or produce any poisonous symptoms, which have been feared on account of its well-known pernicious action, even in relatively small doses, upon the lower animals. As compared with the use of caffeine, I would say that it is greatly the inferior of this latter drug when we desire to obtain considerable diuretic effects. As to the comparative power of these two drugs in their action upon the heart, it is as yet impossible to assign their precise place. Still, I am disposed to think that convallaria is somewhat more of an invigorator of cardiac power than caffeine is. At all events, in man its action is a less variable quantity, for while caffeine, in even small doses of two or three grains, will occasionally produce congestive phenomena of distressing character, and, again, in similar or much larger doses, will prove inert, convallaria appears to produce about similar effects in persons of different temperament. Thus far, in my own experience, convallaria has been more readily accepted by a sensitive stomach than either caffeine or digitalis.

A CASE OF FREUND'S OPERATION.

By J. E. JANVRIN, M. D.

THE following case was operated upon on June 8, 1881:

The patient, a lady of fifty years, a widow, and the mother of several children, came under my care in April of the same year, and, on examination, was found to be suffering from carcinoma of the cervix and body of the uterus.

Her history for the year preceding had been that of one suffering from this disease—severe pain, hæmorrhages, and gradual wasting. During the early part of April I curetted the uterus, removing the tissues as thoroughly as possible by this operation, and for a period of six weeks she was much relieved.

Soon the symptoms of a return and extension of the disease manifested themselves, and, at the urgent solicitation of the patient, after all the dangers of the operation had been fully set forth to her, it was decided to remove the entire uterus.

As far as could be ascertained by a thorough examination, the disease had not progressed beyond the uterus. This view was concurred in by Dr. E. Noeggerath, who saw the patient in consultation with me, as was also the propriety of resorting to the removal of the entire organ.

The operation was performed on the 8th of June. Listerism in all its details was fully carried out. Drs. Noeggerath, T. A. Emmet, E. H. Peaslee, Herrick, Currier, and J. E. Allen were present, and rendered most valuable assistance.

On opening the abdominal cavity, and exploring it carefully, it was found that the disease had extended anteriorly, involving the cellular tissue between the uterus and bladder. There was also some evidence of disease in Douglas's cul-de-sac. The operation was proceeded with, however, and the ligatures passed according to Freund's method, three upon either side. In this case those upon the left side first,

then upon the right. After cutting through the peritonæum between the bladder and the uterus, and while endeavoring to separate with my finger the bladder from the cervix, although the greatest care was used, yet, on account of the extreme friability of the tissues, a small rent was made into the bladder. It then became evident that the disease had involved the posterior wall of the bladder. On account of this extreme friability of the tissues, it was found impossible to remove the cervix with the body of the uterus. The body itself was rapidly enucleated. Two fine carbolized silk sutures completely closed the rent in the bladder, the final ligature on either broad ligament having been applied just before enucleating the uterus. The abdominal cavity was carefully sponged out and the incision closed by silver sutures.

The patient, almost pulseless, was removed to her bed, wrapped in warm blankets, and hot bottles applied to the extremities. Hypodermics of brandy had been given frequently during the latter part of the operation, and were continued at short intervals for six hours after the operation was completed. Hæmorrhage to the amount of six ounces occurred during the operation. Operation lasted an hour and a half, being completed at 4.30 P. M. By midnight, the effects of the ether having worn off, she was quite conscious, and began to take milk and brandy by the mouth, which was continued every hour, one ounce of the former and half an ounce of the latter.

June 9th.—3 A. M., pulse 140, and extremely feeble, respiration 30, temperature 100°. Reaction apparently just beginning. 5 A. M., has been sleeping at short intervals (ten or fifteen minutes) during greater part of the night. Catheter passed, and an ounce or more of bloody urine drawn. 10 A. M., some pain and considerable restlessness. Hypodermic, Magend. sol. m vij . Temperature 100°, respiration 28, pulse 120 and slightly improved. Catheter, two ounces urine somewhat tinged with blood. 2 P. M., the brandy and milk, in the proportions previously mentioned, has been continued every hour; also an ounce of milk on the half hour between. 9 P. M., temperature 102°, pulse 140, respiration 30. Has just vomited freely. Brandy, 3 ij, hypodermically, followed in half an hour by an enema of ten grains of quinine, with half a tablespoonful of Valentine's beef juice, and an ounce of brandy. 10.30 P. M., the enema of quinine, beef juice, and brandy repeated. Patient perfectly conscious, but failing rapidly. In fact, reaction has never fully set in, and she is sinking from shock.

Death took place at 11.30, patient being conscious and able to converse a few minutes before its occurrence.

Post-mortem showed no evidences of peritonitis. The cavity of abdomen was free from bloody serum, and perfectly clean. There had been no leakage of urine through the small rent in the wall of the bladder, the sutures having held the edges in perfect apposition.

Remarks.—In reporting this case of unsuccessful attempted relief from the painful and certain death from the disease itself, I will simply state that, from my experience in this case, and from observation of others—some of which have been operated upon by Freund's method, and some *per vaginam*—I have no hesitation in saying that of

the two operations the latter is by far the easier of performance, and holds out the best chance of recovery.

In this case, the uterus and all the diseased parts surrounding it could not have been removed by either method.

The extension of the disease to the posterior wall of the bladder and its infiltration into Douglas's cul-de-sac could not be made out prior to the operation. There had been no symptoms pointing to bladder trouble of any kind. Neither, on examination, could the slight thickening in the cul-de-sac be distinguished.

This being the case, as far as we could discover, it was thought best at the time to attempt Freund's method of operating. The unforeseen complications prolonged the operation, and contributed largely to the unfortunate termination of the case.

191 MADISON AVENUE, NEW YORK, *January 29, 1883.*

Book Notices.

BOOKS AND PAMPHLETS RECEIVED.

Amputation of Cervix Uteri. By W. H. Wathen, M. D., etc. Pp. 12. [Reprint from the "Richmond and Louisville Medical Journal."]

Anniversary Address before the New Orleans Medical and Surgical Association, December 2, 1882. By John Godfrey, Passed Assistant Surgeon, U. S. M.-H. S. Pp. 17. [Reprint from the "New Orleans Medical and Surgical Journal."]

Twenty-seventh Annual Announcement of the Kentucky School of Medicine.

Bromide of Ethyl, the Most Perfect Anæsthetic for Short, Painful Surgical Operations. By Julian J. Chisolm, M. D., Professor of Eye and Ear Diseases in the University of Maryland, etc. Pp. 8. [Reprint from the "Maryland Medical Journal."]

Vaccine and Variola. By Dr. Leonhard Voigt, Superintendent of Vaccination at Hamburg. Translated by H. Tallchet, LL. D., Professor (elect) of Modern Languages of the University of Texas. Pp. 30. [From Dr. Thomas F. Wood, Editor of the "North Carolina Medical Journal."]

Strictures of the Urethra situated at or near the Meatus: their Causes, Nature, and Treatment. Together with a Description of a New Meatotome. By Charles L. Mitchell, Ph. D., M. D., Professor of Chemistry, Sanitary Science, and Venereal Diseases in the Medico-Chirurgical College of Philadelphia. Pp. 7. [Reprint from the "Philadelphia Medical Times."]

Laryngeal Epilepsy. By Landon Carter Gray, M. D., Brooklyn, N. Y. Pp. 6. [Reprint from the "New England Medical Monthly."]

The Ethical Problem, as Demonstrated by the History of Medical Societies in New Orleans. An Address before the New Orleans Medical and Surgical Association . . . by the Retiring President, Joseph Holt, M. D. Pp. 11. [Reprint from the "New Orleans Medical and Surgical Journal."]

The Oleates and Oleo-palmitates in Skin Diseases. By John V. Shoemaker, A. M., M. D., of Philadelphia, Physician-in-charge to the American Hospital for Skin Diseases, etc. Pp. 16. [From advance sheets of the "Transactions of the Pennsylvania State Medical Society."]

Discusion sobre algunos Puntos de la Historia del Lavado Gástrico por O. Gourgues, Dujardin-Beaumetz, y J. Armangué. Folleto publicado por José Armangué. Pp. 16.

The Value of Graduated Pressure in the Treatment of Diseases of the Vagina, Uterus, Ovaries, and other Appendages. By Nathan Bozeman, M. D., Surgeon to the Woman's Hospital of the State of New York. Pp. 62. [Reprint from the "Atlanta Medical Register."]

A Dictionary of Medicine, including General Pathology, General Therapeutics, Hygiene, and the Diseases Peculiar to Women and Children. By Various Writers. Edited by Richard Quain, M. D., F. R. S., Fellow and late Senior Censor of the Royal College of Physicians, etc. New York: D. Appleton & Co., 1883. Pp. xviii-1816.

A System of Human Anatomy, including its Medical and Surgical Relations. By Harrison Allen, M. D., Professor of Physiology in the University of Pennsylvania, etc. Illustrated with three hundred and eighty figures on one hundred and nine plates . . . also upward of two hundred and fifty woodcuts in the text. Section iii—Muscles and Fasciæ. Philadelphia: Henry C. Lea's Son & Co., 1883. 4to, pp. iv-243 to 334, inclusive. [Portfolio cover.]

Early Aid in Injuries and Accidents. By Dr. Friedrich Esmarch, Professor of Surgery at the University of Kiel, etc. Translated from the German by H. R. H. Princess Christian. Philadelphia: Henry C. Lea's Son & Co., 1883. Pp. viii-17 to 117, inclusive.

A Compend of Obstetrics. Especially adapted to the use of Medical Students and Physicians. By Henry G. Landis, A. M., M. D., Professor of Obstetrics and Diseases of Women in Starling Medical College, etc. With Illustrations. Philadelphia: P. Blakiston, Son & Co., 1883. Pp. 107. [Quiz Compend, No. 5.]

Pocket Therapeutics and Dose Book, etc. By Morse Stewart, Jr., B. A., M. D. Third edition, revised and enlarged. Detroit: George D. Stewart & Co., 1882. 16mo, pp. 240.

Fragments d'ophtalmologie pratique. Blépharite. Granulome palpébral. Conjonctivite purulente des nouveau-nés. Conjonctivite granuleuse. Kératite vasculaire d'origine granuleuse. Par le Docteur S. Baudry, Médecin-Oculiste du Bureau de Bienfaisance de Lille. Paris: O. Berthier, 1883. Pp. 66. [Price, 2 fr., 50.]

Simulation de l'amaurose et de l'amblyopie: des principaux moyens de la dévoiler. Par le Docteur S. Baudry, Médecin-Oculiste du Bureau de Bienfaisance de Lille. 5 figures dans le texte. Paris: O. Berthier, 1883. Pp. 32. [Price, 2 fr., 50.]

The Diseases of the Prostate: their Pathology and Treatment. By Sir Henry Thompson, Surgeon Extraordinary to His Majesty the King of the Belgians, etc. Fifth London edition. Philadelphia: P. Blakiston, Son & Co., 1883. Pp. viii-157. [Price, paper, 75 c.; cloth, \$1.25.]

Second Annual Report of the State Board of Health of New York. Transmitted to the Governor February 8, 1882. Albany, 1882. Pp. viii-726.

Abdominal Section in the Treatment of Ulceration and Perforation of the Cæcum and the Appendix Vermiformis. By William A. Byrd, M. D., Illinois. Extracted from the Transactions of the American Medical Association, 1881. Philadelphia, 1881. Pp. 7.

Address in Surgery. Excisions of Portions of the Alimentary Canal covered by Peritonæum. By William A. Byrd, M. D., Quincy, Ill. Reprinted from Transactions of the American Medical Association. Philadelphia, 1882. Pp. 11.

What Shall We Do for the Drunkard? A Rational View of the Use of Brain Stimulants. By Orpheus Everts, M. D., Superintendent of the Cincinnati Sanitarium, etc. Cincinnati: Robert Clarke & Co., 1883. Pp. 51.

Annual Announcement of the Toledo Medical College. Session of 1883.

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FRANK P. FOSTER, M. D.

NEW YORK, SATURDAY, FEBRUARY 10, 1883.

THE NEW CODE STANDS.

ON Tuesday last, the first day of the seventy-seventh annual meeting of the Medical Society of the State of New York, Dr. Edward R. Squibb, of Brooklyn, introduced before the meeting certain resolutions having for their purpose the abrogation of the code of ethics adopted at the meeting of 1882, and the re-establishment of the code previously in force—namely, the code of the American Medical Association. The full text of these resolutions will be found in our formal report of the proceedings. They were made the special order of business for the evening session. At that session, after three hours of discussion in committee of the whole, a vote was taken, the ayes and nays being called, with the following result: Ayes, ninety-nine; nays, one hundred and five. It was ruled that the resolutions, being of the nature of an amendment to the by-laws, required a two-thirds vote in the affirmative for their adoption; it will be seen that they did not secure even a majority.

In view of the fact that many of the county societies had instructed their delegates to vote for the restoration of the old code, we presume that most of our readers would not have been surprised if Dr. Squibb's resolutions had been carried. There can be little doubt, however, that the recent decided expression of opinion by the Medical Society of the County of New York in favor of the new code, although declining to instruct its delegates, went far, by its moral effect, to incline a number of permanent members and uninstructed delegates to oppose the restoration of the old code. That expression of opinion on the part of our county society was embodied in a vote taken at a special meeting held on the 29th of January, the meeting having been called for the express purpose of considering the question of the code. The vote stood: one hundred and forty-seven in favor of sustaining the new code, and sixty against it. The moral effect of this formal action of the county society does not appear to have been offset by a petition, signed by many prominent New York physicians, setting forth their belief that the new code was not acceptable to the majority of the profession—which petition figured in the debate in the committee of the whole at the meeting of the State society.

After the vote was announced, Dr. Roosa, in fulfillment of the intention expressed by him at the meeting of last year, introduced his resolution, the gist of which is contained in the declaration that "the only ethical offenses for which they [the medical profession of the State of New York] claim and promise to exercise the right of discipline are those comprehended under the commission of acts unworthy a physician and a gentleman." Action on this resolution was promptly postponed until next year.

Thus, then, the vexatious question of the codes may be looked upon as settled, at least for the time being. This in itself is a matter for congratulation, and it is still more gratifying to be able to record the fact that, during the discussion, no offensive tactics were resorted to on either side, nor did the warmth of debate lead to any remarks of a rancorous nature. Indeed, while each side fought hard for its cause, the meeting was notably good-natured in its tone. We sincerely trust that the action taken may prove to be wise, and that its effect may not in the long run act as a bar to the affiliation of our State society with those bodies that formerly worked in harmony with it.

THE NEW PHARMACOPŒIA.

IV.

IN former articles we have mentioned some points in the pharmacy of the pharmacopœia, but only incidentally. It is our present purpose to speak more fully of this feature of the work. We are struck at the outset with some judicious directions as to the fineness of powders. Powders are termed "very fine," "fine," "moderately fine," "moderately coarse," and "coarse," or, as expressed numerically, "No. 80," "No. 60," "No. 50," "No. 40," and "No. 20," according as they will pass through a sieve of eighty (or more), sixty, fifty, forty, or twenty meshes to the linear inch. In certain instances, intermediate degrees of fineness are directed, designated by numbers indicating the number of meshes to the linear inch of the sieves through which they should pass. The establishment of these standards substitutes exactness for fancy, and, so far as we can see, is not likely to prove burdensome to the pharmacist.

We infer that tinctures of fresh herbs have found some favor with the committee, for we notice a general formula, under the title "*tincturæ herbarum recentium*," which directs fifty parts of the fresh herb, bruised or crushed, to be macerated for fourteen days with one hundred parts of alcohol, the liquid to be then expressed and filtered. The reader may infer either that the committee entertain the idea, although regarding it as still *sub judice*, that it would be an advantage to use all herbs in their fresh state so far as practicable; or else that they consider it well that only some particular plants should be employed fresh in the preparation of tinctures. If the latter is the case, it is to be regretted, we think, that the committee have not specified those individual plants. Moreover, seeing that they evidently had under consideration the elements that conduce to the efficiency and uniformity of vegetable drugs, it is strange that they have not in a greater number of instances directed from what country the plant should be obtained, and at what period of its growth or at what time of the year it should be gathered—factors that are well known to be of paramount importance in determining the activity or the worthlessness of the drug in many cases.

Triturations seem to have commended themselves somewhat more decidedly to the committee, for they have not only given a general formula for their preparation, but actually made one trituration officinal—that of elaterin. There are those who

attribute to exceedingly fine comminution the effect of heightening the activity of certain drugs, and we may look to see a somewhat extensive use of various triturations by those gentlemen. We are inclined to think, however, that the profession in general will stand aloof from these preparations except in the case of drugs of which, like elaterin, the dose is so small that, if it is to be given in the form of powder, convenience calls for an increase in its bulk. Powders are not very elegant preparations at best, and it does not seem to us that their multiplication is at all desirable. In regard to sugar of milk, we have already mentioned its employment in the new class of preparations termed abstracts, and we may add that it now takes the place of sulphate of potassium in Dover's powder. A liquid counterpart of Dover's powder is found in the new tincture of ipecac and opium, made of deodorized tincture of opium, fluid extract of ipecac, and alcohol.

Simplicity would have been consulted, we think, if the diluted acids and other like preparations had been dismissed from the list. Their presence cumbers the book, and pharmacists will be expected to keep them on hand, we presume—all for no good reason that we can see. Their uselessness is exemplified in the second formula for liquor ammonii acetatis (p. 194), in which, instead of adding carbonate of ammonium to diluted acetic acid, we are directed to employ certain specified quantities of carbonate of ammonium, acetic acid, and water.

In several of the liniments, cotton-seed oil is substituted for olive-oil—a very commendable change, we think, since the former oil is less expensive and equally good for the purpose. Cotton is directed to be used in certain processes of percolation, especially in making several of the aqueous preparations of the essential oils. For instance, to make anise water, we are told to add two parts of oil of anise to four parts of cotton, “in small portions at a time, distributing it thoroughly by picking the cotton apart after each addition; then pack it firmly in a conical percolator, and gradually pour on distilled water until one thousand parts of percolate are obtained.” We have heard the objection made to this use of cotton, that in the repeated acts of picking it apart some of the oil will necessarily stick to the fingers, so that the amount left to enter into the finished product will be indefinite.

While on this matter of percolation, we can not forbear to enter our protest against the burdensome and wholly needless work entailed upon the pharmacist by the fact that the pharmacopœia adheres persistently to weights instead of measures of capacity. It is idle to pretend that, for ordinary purposes, the one is any more exact than the other. We think, too, that the use of specified quantities, by weight in the case of solids, and by measure in the case of liquids, would have answered the purpose quite as well as the vexatious proportional parts given in the pharmacopœia. The use of the metric system of weights and measures, too, whatever may be said in its favor from a theoretical point of view—and thus far we have noticed nothing convincing—has failed to find favor with our countrymen, and we doubt the wisdom of attempting to force it upon them officially.

In the formula for aromatic spirit of ammonia we notice the injunction to use “alcohol, recently distilled, and which has been kept in glass vessels.” If there is any real necessity for such nicety as this direction calls for, we think the formula has no more title to be given in the pharmacopœia than those for making the alkaloids, or than several others that are omitted as coming within the special province of the manufacturing chemist, for it seems either that the pharmacist will have to make his own alcohol, or else that he will have to adopt extraordinary devices to satisfy himself that the alcohol he buys for this purpose is recently distilled and has been kept in glass vessels.

In the preparation of aromatic sulphuric acid, the new pharmacopœia directs the use of tincture of ginger and oil of cinnamon, instead of ginger and cinnamon in powder. This may result in some diminution of astringency, but we are inclined to think that the acid is so decidedly the essential constituent of the preparation that it may be prescribed in its new form with confidence that its action will be found not to have been materially modified.

An error seems to have been committed in making the *leaves* the officinal portion of the *Hamamelis virginica*, instead of the young twigs. We will here observe, too, what should have been mentioned in a former article, that, in making only one species of viburnum officinal, the framers of the pharmacopœia would probably have done well to choose the *Viburnum opulus* instead of the *V. prunifolium*.

We come now to a matter of very great importance, namely, the preparations of opium. The opium of the old pharmacopœia, according to the new pharmacopœia, contained about 8 per cent. of morphine, whereas that of the new pharmacopœia contains 9 per cent., or more; the powdered opium of the former contained 10 per cent. or more of the alkaloid, while that of the latter contains from 12 to 16 per cent. The laudanum of 1870 contained 9 per cent. of the powdered opium of 1870 (i. e., 0.9 per cent. or more of morphine); the laudanum of 1880 contains 10 per cent. of the powdered opium of 1880 (i. e., from 1.2 to 1.6 per cent. of morphine). With all these variations, it may happen that a specimen of the laudanum of the new pharmacopœia shall have a morphine strength, in comparison with that of the old preparation, of sixteen to nine—in other words, it may be very nearly twice as strong! Is not this a good deal to pay for the whistle represented by the desire to have all tinctures made with a uniform proportion of the crude drug? Uniformity is desirable, no doubt, and in itself the increased strength of the laudanum of 1880 is not in the least objectionable. We fear, however, that serious mistakes will be made in practice unless the most stringent precautions are taken.

At the outset, we advised our readers to make themselves acquainted with the new pharmacopœia. It is unsafe to remain in ignorance of its contents. He who prescribes tincture of opium, with no other thought than the same prescription has occasioned him for years past, may find that his prescription is taken to an apothecary who thinks it incumbent on him to follow authority *ruat calum*; and the consequences, especially

if the patient should happen to be an infant, may be fatal. We therefore advise all physicians to specify on their prescriptions whether they mean the laudanum of 1870 or that of 1880, and we would urge upon all apothecaries never to dispense the latter unless it is specifically ordered. Even these precautions, we fear, will scarcely suffice as a protection against misunderstanding in the matter of the familiar mixtures containing laudanum—Dewees's carminative, for instance.

It remains only to speak of a few matters pertaining to style and accuracy, in regard to which features the book is singularly meritorious. Very properly, as it seems to us, the committee use the word gramme instead of gram, and we are unable to see why they should use liter instead of litre. They say, also, "deodorized tincture of opium," but "denarcotized opium." The *mistura rhei et sodæ* contains no soda, but a salt of sodium. It seems to us that the expression *extractum sarsaparillæ fluidum compositum* would be better than *extractum sarsaparillæ compositum fluidum*; a fair inference from the latter would be, that there was another compound extract of sarsaparilla that was a solid, which is not the case.

Dried alum is said to answer to "the same reactions" as alum—meaning, doubtless, the same *tests*. In two of the chemical formulæ, that of acetic ether (p. 25) and that of hydrochlorate of apomorphine (p. 40), we note an absence of the punctuation necessary to separate the formula of the acid from that of the base.

The style of writing is generally clear and in keeping with the idioms of the English language. In several places, however we have noticed the abominable expression "the above," meaning the foregoing, also occasional slips in punctuation. The book is remarkably free from printers' errors, only one of which occurs to us now—that of "*Apocynum kannanbium*" for *Apocynum cannabinum* (p. 447).

On the whole, the new pharmacopœia seems to us a most creditable production, and the profession will no doubt recognize the debt of gratitude they owe to the committee for their patient and arduous labors in preparing it. At the same time, we have not scrupled to point out what seemed to us its weak points. The more familiar physicians become with the work, and the more it is discussed, the better fitted will the next committee be to produce its superior in the pharmacopœia of 1890.

THE NEW YORK WATER FAMINE.

Now that the Brooklyn Bridge is approaching its completion, it becomes evident that we must provide some other placer for our "bosses." This statement needs no argument to support it, for even inanimate objects show their appreciation of the fact. No sooner does a commission meet to consider the necessity of building a new aqueduct than the old aqueduct, loyal witness that it is, at once begins to dole out its supply of water even more stingily than before. For many months past we have been accustomed, whenever water was to be had at all above the ground floor, to a dribble in comparison with which the drippings from an umbrella might be called a

torrent; but on a recent occasion the aqueduct fairly outdid itself. On the night of the 24th of January taps that before had shown no particular falling off from their accustomed oozing would yield not a drop of water. This action on their part came in the very nick of time, for the engineer of the Croton Aqueduct Department had just testified that the aqueduct was running at its full capacity. No testimony could better have served the purposes of the rapacious "bosses" than just this combination of Mr. Newton's statement and such a signal failure of the aqueduct. If the aqueduct, running at its full capacity, utterly failed nevertheless to send a drop of water twenty feet above the sidewalk at dead of night—and that, too, without any unusual demand having been made on it by the Fire Department or in any other way known to the public—how could there be any question but that such an aqueduct was manifestly inadequate?

We are bound to suppose that the aqueduct kept on running at its full capacity, but that in some mysterious way that capacity was suddenly reduced, possibly by means of a vaso-constrictor effort on the part of the conduit itself, exerted for the purpose of impressing the commission. Unfortunately for the ring, however, the aqueduct proved unequal to a very prolonged course of deception, and ever since the date which we have mentioned there has been a better supply of water than for several weeks before. It is not a little singular that this spasm of the aqueduct should have relaxed on the very day that the newspapers gave publicity to the leading points in a document presented to the Water Commission by a committee of the Taxpayers' Central Committee, in which we note the following significant passage: "The water leaves the Croton Aqueduct at One Hundred and Thirty-fourth Street, and is conveyed through six iron mains to Ninety-second Street, where it enters the aqueduct again. Between One Hundred and Thirty-fourth and Ninety-second Streets there is only one outlet, a twenty-inch main, supplying West Harlem, East Harlem being supplied from the reservoir. It frequently happens that the depth of water in the aqueduct at High Bridge is six feet two inches, while in the aqueduct at Ninety-second Street it is only three feet or less, the velocity of the water at both points being the same. This would mean a loss of two thirds of the volume of water passing out of the aqueduct at One Hundred and Thirty-fourth Street. This was denied by the Commissioner of Public Works in 1879, on the authority of his subordinates, but not of his own personal knowledge. To explain what became of the water between One Hundred and Thirty-fourth Street and Ninety-second Street, the committee said that there were at One Hundred and Nineteenth Street, the lowest point, twelve twelve-inch holes, known as 'blow-offs,' which, when opened, discharged the water into the sewers. There were similar openings at Manhattan Street, between One Hundred and Twenty-sixth and One Hundred and Twenty-seventh Streets. It was not charged that these openings were unlawfully or improperly used, but they clearly revealed a way by which the facts mentioned could be accounted for."

Bearing in mind that the engineer did not state how far in

its course the aqueduct was running at its full capacity, the New York tax-payer may admit the possibility that these "blow-offs" were not "unlawfully or improperly used," and look upon the aqueduct as an untrustworthy witness; but it would not be well to call upon him in support of that view.

THE TREATMENT OF FISTULA IN ANO.

At a recent meeting of the Société de Chirurgie, of Paris ("Union Médicale," Oct. 10, 17, 1882), there was a very interesting and exhaustive discussion upon the treatment of fistula, which called out the views of some very well-known surgeons. It was begun by M. Lucas-Championnière, who read a report on a recent memoir by Dr. Queirel, of Marseilles, upon the use of the elastic ligature. The memoir was based upon five cases, which seemed to constitute a strong argument in favor of this method of treatment, and to justify the conclusions that the method was free from danger even when the fistula extended high up; that it gave rise to few complications, while the operation with the knife was not infrequently followed by purulent infection, phlegmon, and relapse; that it avoided hæmorrhage; that it provoked no inflammatory reaction, or inflammation in the vicinity; that it was followed by no relapse; that the wound healed from the bottom; that the patients were able to continue their occupations from the day of the operation; and that the procedure caused so little pain that chloroform could generally be dispensed with. Again, that a general bad condition did not contraindicate the operation. M. Lucas-Championnière had himself practiced this operation a certain number of times. In some cases it was painless, in others there was more or less pain, and once the pain had been very severe. It had seemed to him that this symptom was in relation to the size of the ligature used, and that the larger the elastic the greater the suffering. He used a very small ligature, and Queirel had shown, with Simon, that for the success of the operation it was not necessary to draw the cord very tight, but that a moderate constriction served to divide the tissues. The cord cut the tissues, and cicatrization proceeded behind it. He had observed, in opposition to Queirel, that, if the patients were allowed to go about immediately after the operation, there would be more or less severe pain, and he advised that they be confined to bed for the first few days.

M. Verneuil formally protested against the adoption of this procedure. Without doubt the elastic ligature had its use in cases of small, superficial fistulæ without diverticula or undermining of the skin; but in other cases it should be rejected, and even in them it had no advantages over the use of Paquelin's cautery—a method so simple, so easy, and so efficacious. He also sided entirely with those who rejected the bistoury for this operation. In fact, the bistoury was a cause of complications, of hæmorrhage, of erysipelas, and of other accidents more or less grave. He also rejected the *écraseur*, the use of which exposed the patients to the same accidents as the bistoury. He had lost one patient at the Hôtel Dieu, from hæmorrhage, after operating with the *écraseur*. He greatly preferred the cautery, which was applicable to all fistulæ, great or small, never caused hæmorrhage, and prevented relapse infinitely better than the elastic ligature. In fact, a return was generally the result of an incomplete operation, and the ligature always left something incomplete unless as many cords were used as there were diverticula, in which case the operation was greatly complicated.

As to pain, it had always been very severe when he had used the ligature. His patients had all complained of great suffering, and one poor woman, affected with tuberculosis, had died five or six days after the operation, worn out with the suffering and

lack of sleep. It was alleged in favor of the ligature that it dispensed with the use of the tent for stuffing the incision, but for his part he had abandoned the detestable use of the tent twenty-five years ago. Again, the cautery was much to be preferred to the elastic ligature in cases of albuminuria, gout, gravel, or any other diathesis. He denied to the ligature any advantages over the modern operations; but, on the contrary, he found in it the gravest inconveniences, especially when dealing with fistulæ with numerous diverticula, or in hard and resistant tissues. The method could in no way compare with the use of the cautery for simplicity, effectiveness, or avoidance of pain. In all cases he advised that the patient be not allowed to go about too soon.

M. Marc Sée remarked that a relapse was generally the result of an incomplete operation, and that the objection to the ligature was the difficulty with which it could be made to cover the entire field of the disease. He had, moreover, found, in opposition to Queirel, that it was necessary to make the constriction as tight as possible, and that the cord should be stretched to five or six times its natural length. With this amount of stretching the pain only lasted for an instant, and the tissues were divided much more quickly. The ligature caused no hæmorrhage, but, according to his experience, both the cautery and the *écraseur* sometimes did.

M. Desprès wished to say a word in favor of the *écraseur* and the bistoury. According to him, neither the cautery nor the elastic ligature accomplished what was promised for them, particularly in the way of avoiding hæmorrhage. The cautery produced deep and extensive burns, and caused great pain. He preferred the *écraseur*, which accomplished in a few moments, with the aid of chloroform, all that was possible. In superficial fistulæ the bistoury was all that was necessary. He had operated with the bistoury in 220 out of 230 or 240 cases, and had never had hæmorrhage or lost a single patient from purulent infection at the Cochin hospital, but he never operated off-hand, and always prepared his patients by a week or two of treatment with repose, cataplasms, lotions, and baths. Besides these 220 operations with the bistoury, he had used the *écraseur* ten or twelve times in cases of deep fistulæ, and never had seen a relapse.

M. Terrier thought that, considering the multiplicity of the causes of fistula, it would be strange if any one operation were best adapted to them all. He spoke at some length upon the different pathological conditions, and the various means at the disposal of the surgeon for dealing with them.

M. Desprès attached little importance to the presence of diverticula unless they were near the skin, when they should always be divided. When they were deep and near the rectal opening, all that was necessary for their cure was the division of the tract which connected the cutaneous with the rectal orifice.

M. Berger thought Desprès the most favored of surgeons in having cured 230 or 240 fistulæ without concerning himself with diverticulæ. For his part, they always returned when the operation was incomplete and the diverticula were not laid open. There was one class in which operations were often unsuccessful—that in which the cutaneous openings were situated in hard, infiltrated, brawny skin, resembling the condition of elephantiasis. In such cases it was necessary to remove this tissue completely to secure a good result. In some cases, in spite of dressings and the most minute precautions, healing could not be induced. Often in these cases the lack of success was due to a bad general state of the patient, who was more or less under the influence of the tubercular diathesis. He had seen a fistula which had resisted every kind of local treatment cured in a month by the administration of cod-liver oil.

M. Trélat said that when fistulæ were seen the tracts of which presented conditions unfavorable to cicatrization (callosities, fungosities, etc.), it was necessary first to destroy the fungous tissue, and bring back the tracts into a condition to heal. On this point he agreed entirely with MM. Terrier and Berger.

M. Duplay thought, also, that it was impossible to lay down any general rule for the treatment of an affection which showed such marked differences. All fistulæ, he thought, could be reduced to two general varieties—the simple and the complicated. For the latter it might be necessary to resort to multiple incisions, to alterative applications to the walls and bottoms of the tracts, to very careful dressings, etc. For the simple ones, which did not mount far above the sphincter, the kind of operation was of little importance. Such a fistula might be divided with a bistoury, with scissors, with Paquelin's cautery, with the galvanic cautery, or with the elastic ligature. This last procedure, which was particularly under discussion, had incontestable advantages over the others (admitting that it really had all the merits claimed for it) in its extreme simplicity, which rendered it hardly worthy of the name of an operation; and it constituted a real progress in the treatment of the disease.

M. Després believed that he ought to protest, in the name of progress, against the proposition enunciated by MM. Trélat, Berger, and Terrier, that the important element in the treatment of fistulæ was medication of the tract. According to his idea, a fistula was cured when the internal orifice was united with the external by section, so that gas and fæces no longer passed by an artificial route.

NEW YORK IN MEDICAL LITERATURE.

DURING the first half of this century New York was often spoken of contemptuously by the profession throughout the country, the reproach being cast upon the physicians of the city that their energies were wholly given up to money-making, that they seldom made any noteworthy additions to medical literature, and that contemporary medicine was little if at all the gainer by their existence. It can not be denied that these taunts were deserved. But a notable change has taken place within the last thirty years—indeed, even within the last decade. Men who are now active writers and society workers were accustomed to say, a few years ago, and with rather an air of satisfaction, that they were "no writers." This change was graphically set forth in the President's address to the Academy of Medicine last week—an address of which we shall endeavor to lay an abstract before our readers very soon.

It seems that Dr. Barker has taken pains to ascertain the varying literary activity of the New York profession as indicated by the number of books that have emanated from them during the present century. He finds that from the beginning of the century to the year 1850 one hundred and nine such books were published, while in the thirty years, from 1850 to 1880, there were two hundred and thirty-six. We understand that these figures refer only to original works, leaving translations, revisions, and the like, out of account, and excluding also all contributions to periodicals. The contrast is certainly striking, and, although the gauge is quantitative only, we do not hesitate to assert that a very large proportion of the leading American medical text-books are of New York origin, and that that proportion is steadily increasing.

THE NEW YORK ACADEMY OF MEDICINE.

FOLLOWING Dr. Barker's inaugural address, at a meeting of the Academy held on the 1st inst., complimentary remarks were offered by Dr. Detmold, Dr. Post, Mr. F. Seymour Haden, of

London, and the Vice-President, Dr. Weir; after which, the Vice-President being in the chair, the following resolutions, offered by Dr. W. M. Carpenter, were seconded and unanimously adopted:

Whereas, To those of us who have been accustomed to attend the meetings of this organization, the concise and comprehensive *résumé* of the history and present condition of the New York Academy of Medicine to which we have listened has passed before us like a pleasing and edifying panorama:

Be it Resolved, That we hereby express our hearty appreciation of the fidelity and untiring industry of our President for the welfare of this institution.

Resolved, That we are ever ready to respond to his call, and indulge the hope that what we have received from our most worthy founders, whether it be physical or scientific, constructed of brick and stone, we shall be able to transmit constructed of solid marble.

The Academy then adjourned to partake of the loving cup.

Proceedings of Societies.

MEDICAL SOCIETY OF THE STATE OF NEW YORK.

THE seventy-seventh annual meeting was held at Albany on Tuesday, Wednesday, and Thursday, February 6, 7, and 8, 1883, the President, Dr. HARVEY JEWETT, of Canandaigua, Ontario County, in the chair.

FIRST DAY.—TUESDAY, FEBRUARY 6TH.

Morning Session.

Prayer was offered by the Rev. Albert Foster, of the Tabernacle Church.

The President then proceeded to deliver his inaugural address. He said that the age in which we lived was especially characterized by enthusiasm and push in every department of literature and science. Not alone had the special departments of the medical profession been advanced, but the art and science of medicine generally was advancing to further possibilities and higher acquirements in scientific investigation and discovery. If we looked back for half a century, and marked the steady and progressive steps in medical practice, the dissipation of crude views and absurd practices that governed the profession in those days, and noted what had been accomplished in this generation, an amazing advance on any other period of the world's history was found. Legislative enactments had done little or nothing to abate quackery or increase the interest in medical literature. Whatever was to be done must be done through individual action. The profession was competent, through its representatives in the State and county societies, to establish what should be the standard of attainment of those who were to be received into the ranks. A more complete and thorough preliminary education of young men who desired to enter upon the study of medicine was the first step in advancing medical education. A much higher standard of medical qualifications before the granting of a diploma was universally conceded and acted upon by the leading medical colleges in the country. These requirements, if carried out, would, in the future, tend to bring about the desired result. The graded course of instruction in use at the University of Pennsylvania, Harvard College, and Syracuse University commended itself to consideration as the most systematic and approved method. The law passed in 1872 creating a State Board of Examination, whose duty it should be to certify to the qualifications of candidates for admission to practice, should be made compulsory and com-

prehensive, as it would remove all imputation of partiality or favoritism from any source. The proposition for the establishment of separate hospitals for contagious diseases in large cities should receive attention at the hands of the society and be carried into practical operation. The adulteration of food and drugs should also be considered.

The speaker suggested that the annual address be delivered in the hall where the meeting was held instead of at the Capitol. The philanthropic labors of the State and National Boards of Health were commended, but the work of the National Board was practically suspended by the remarkable disregard of the public health on the part of Congress in withholding supplies to carry on their labors. The subject should receive the considerate attention of the society, whose views should be emphatically expressed. The speaker devoted considerable space to a discussion of the new code of ethics, which, he said, had not been received by the profession or the medical press, in this and in other States, with cordiality or favor, but, on the contrary, by the most outspoken and emphatic opposition. A year's consideration, a calm and dispassionate discussion of the matter, had greatly enlarged the views of the profession in reference to the objectionable measure, and he trusted a more conservative sentiment existed to-day than at the time of its adoption. The objectionable clause in the new code consisted in the permission of consultation with any legally qualified practitioner of medicine, as not derogatory to the interest and dignity of the profession, or in cases of emergency, or where such aid was required upon the broad ground of common humanity. The advocates of the code held that this was only permissive and not obligatory, and the society should at this meeting consider the subject on its merits, and act as they might deem most conducive to the welfare, dignity, and interests of the medical profession of the State.

The President then announced the following committees:

Business—Drs. Alex. Hutchins, Kings County; C. C. F. Gay, Erie; Darwin Colvin, Wayne.

Credentials—Drs. E. V. Stoddard, Monroe; L. E. Felton, St. Lawrence; T. H. Squire, Chemung.

Dr. W. C. WEY, of Elmira, moved to take a recess for ten minutes.

Dr. S. O. VANDERPOEL, of New York, moved to refer the President's address to an appropriate committee. The motion was carried.

A recess was then taken.

After the recess, the order of communications from county medical societies was announced, and the roll of counties was called by the Secretary, Dr. W. M. SMITH, of Syracuse, but no communications were presented.

After the call, however, the County Society of Westchester presented a communication representing their loyalty to the American Medical Association, and deprecating the action of the State society in regard to the code.

Dr. D. B. ST. JOHN ROOSA, of New York, moved that the communication be referred to the Committee on By-Laws, with a view to reprimanding the county society.

Dr. W. GOVAN, of Rockland, spoke in defence of the county society, and denominated the State society as secessionists.

Dr. Roosa repudiated the statement that the State society were secessionists. We had no relation with the American Medical Association. We sent delegates to it, but were not in any way connected with it. We did not propose to permit this society to be dictated to by any voluntary association.

Dr. ROCHESTER, of Buffalo, said we had adopted the code of the American Association.

Dr. Roosa added: "And repealed it last year."

Dr. H. G. PIFFARD, of New York, moved that the communication be received and placed on file. Carried unanimously.

The Monroe County Society presented a communication which embodied a resolution urging the repeal of the new code.

Dr. MAURICE PERKINS moved that this and all similar communications be placed on file without reading.

Dr. DIDAMA, of Syracuse, asked how it could be known what the communications were unless they were read.

Dr. PIFFARD moved that the communications be referred to the Business Committee after being read.

Dr. ROOSA moved that these communications be read and placed on file.

Dr. DIDAMA objected very strongly to the First District's squelching all these resolutions.

Dr. PIFFARD answered that the First District was not opposed to the reading of them.

Dr. J. S. MOSHER, of Albany, thought it would be better to defer these resolutions till later.

The motion that these communications and resolutions be read and placed on file was carried.

A communication was presented from Broome County condemning the course of the State society with reference to the new code.

Dr. J. G. CURTIS, of New York, read the annual report of the Committee on Experimental Medicine. It mentioned the adverse report by the committee of the Legislature of 1882 on Mr. Bergh's bill to prohibit vivisection. This was the third consecutive session of the Legislature at which the bill had been reported adversely. An association for Original Research had been established in Great Britain during the past year.

Last year one hundred dollars was set aside by the State society for the use of this committee, but it had not been found necessary to draw on it, as the expenses had been small. The committee recommended the adoption of a resolution favoring experiments on living animals.

A motion to receive the report and place it on the minutes was made and carried.

Dr. E. R. SQUIBB, of Brooklyn, moved the adoption of the resolution recommended, and the continuance of the same committee for another year. Carried.

Dr. WEY, of the Committee on By-Laws, presented their report. It recommended the adoption of a resolution approving of the by-laws of the Warren County Society. The report was accepted, and the resolution adopted.

The same committee presented a communication from the society of Otsego County in regard to payment of dues. The committee recommend the adoption of a resolution that it was not expedient to modify the by-laws of this society. The resolution was adopted.

The committee also submitted a resolution that the several county medical societies which had not adopted by-laws should do so, and transmit copies to this society for ratification. In not more than seven instances were the by-laws of the county societies in harmony with the requirements of the laws of the State. The county medical societies were requested to submit their by-laws to the State society for the purpose of ascertaining whether they were in conformity with the laws of the State.

Dr. DOUGLAS's motion that the communication be laid on the table for future action was lost.

A motion that the communication be received and the resolution be adopted was carried.

A communication was received from the Oswego County Medical Society, containing the resolution adopted by them, that in regard to the ethics of consultation it is unworthy of us to call into consultation any but regular practitioners. The communication was received and placed on file.

Dr. SQUIBB submitted the following preamble and resolutions:

Whereas, The Special Committee on the Code of Ethics, in its report at the last annual meeting, recommended a change in one part of the code which was more in the nature of a revolution than of a revision, and, therefore, may be more radical than was expected or desired by the constituency of this society; and

Whereas, That report was adopted at a session wherein only fifty-two members voted in the affirmative, and thus legislated for the entire profession of the State on a subject of vital importance in a direction which may not have been anticipated or desired by the profession at large; therefore,

Be it Resolved, That all the action taken at the annual meeting of 1882, in regard to changing the Code of Ethics, be repealed, leaving the code to stand as it was before such action was taken.

Resolved, That a new special committee of five be nominated by the Nominating Committee of the society, and be appointed by the society to review the Code of Ethics, and to report at the annual meeting of 1884 any changes in the code that may be deemed advisable.

Resolved, That the report of this committee be discussed at the meeting of 1884, and be then laid over for final action at the meeting of 1885.

He moved that the resolutions be made the special order for the evening session at eight o'clock.

Dr. PERKINS moved that the hour of the meeting be half-past seven instead of eight. Carried.

The Business Committee called the attention of the society to the resolution of 1882, limiting the time for the reading of papers to twenty minutes, and suggested that, when this could not be done, abstracts should be read instead of the entire paper.

Dr. SQUIBB thought it would be better to give the committee discretion to extend the time, unless there was a press of business.

The SECRETARY thought the matter might be best arranged by leaving it to the Business Committee.

Dr. SQUIBB feared that that would throw too much of the onus on the Business Committee. Dr. Squibb's motion was carried.

Dr. PIFFARD then read a portion of a paper on ACNE.

Dr. C. R. AGNEW, of New York, one of the delegates of the State society to the American Medical Association, made a report to the effect that, on presenting his credentials at the annual meeting of that association, they were rejected, one member of the State society being conspicuous in the association by his attempts to interest its members against the admission of the delegation. Dr. Agnew also read a letter from Dr. Sayre, one of the State society's delegates, declining to serve, on the ground that he considered the society's departure from the code of the American Medical Association as unwarranted and unauthorized.

The report gave rise to a discussion, but was finally received.

Dr. SAMUEL SEXTON, of New York, read a paper on the REMOVAL OF FOREIGN BODIES FROM THE EAR. [This paper will appear in a future number of the journal.]

Dr. B. L. HOVEY, of Rochester, was appointed a member of the Business Committee in the place of Dr. Colvin, who was absent.

In the discussion on Dr. Sexton's paper, Dr. ROOSA said there were many questions generally supposed to belong to the province of the specialist that really belong to the general practitioner. Take, for instance, the disease known as mumps. Specialists saw the cases after the disease had run its course. The same rule held good in regard to foreign bodies in the ear.

The general practitioner was the man who would see these cases at the time when they could best be relieved. He deemed it a misfortune that this *armamentarium* of instruments should be exposed here. When a child was seen immediately after a bean had been pushed into the auditory canal, then was the opportunity for ordinary successful and easy treatment, and that treatment was by the use of one of the simplest and most effective means that any man could employ—viz., the use of the syringe and warm water. A case was rarely seen which could not be controlled by these means. When the foreign body had been pushed down, surgical skill was needed. He believed that the worst treatment was the use of forceps, and the best the employment of Dr. Gross's simple hook and spoon. It seemed to him a mistake to begin with instruments.

Dr. H. KNAPP, of New York, agreed with Dr. Roosa. His experience with the eye convinced him that the use of forceps was objectionable, and he exhibited two forms of curette, one a single- and the other a double-bladed spoon, and remarked that the principal objection to them was their width.

Dr. GRUENING's experience convinced him that the syringe and warm water were the best means of treatment in these cases.

Dr. A. H. SMITH, of New York, remarked that Dr. SMITH, of Nyack, had suggested the use of some rapidly drying adhesive substance to cause the adhesion of a string or camel's-hair brush to the foreign body.

Dr. DAVID WEBSTER, of New York, thought that no one should attempt the removal of a foreign body unless it was visible.

Dr. A. H. MATHEWSON, of Brooklyn, remarked that foreign bodies had been known to remain for a long time in the ear without doing any particular damage. He had known a case in which a foreign body had been in the ear for a period of seven years.

Dr. SEXTON stated that his paper was prepared with the impression that the members of the society possessed the intelligence which had been shown, and would use the instruments skillfully.

HOT WATER AS AN HÆMASTATIC.—Dr. W. B. CHASE, of Brooklyn, read a paper on this subject, in which he said that in many minor operations the flow of blood was the principal difficulty to be met. Washing a stump with cold water after an amputation increased the cutaneous congestion, and hæmorrhage was likely to follow. The application of hot water would arrest the flow of blood. The local application of hot water arrested the flow of blood in traumatic and in some forms of idiopathic hæmorrhage.

The *modus operandi* of the immediate effect of hot water was difficult of explanation. It must be attributed to some action on the vaso-motor nerves. The method of using hot water, as employed by him, was by sponging; or, in the case of uterine hæmorrhage, by syringing. The water should be of a temperature varying from 115° to 130°. In the latter class of cases its effects were prompt and salutary. In the removal of intra-uterine growths it was invaluable.

Afternoon Session.

Dr. G. H. FOX, of New York, read a paper on the treatment of urticaria, in which he stated that the treatment must vary with the cause of the disease. When dependent upon a gouty diathesis, such remedies as carbonate of sodium and colchicum were proper, with abstinence from meat and nitrogenous food. In gastro-intestinal disturbances, rhubarb, bismuth, and sulphurous acid were indicated.

Flatulence was often the only sign of indigestion. In a case of obstinate urticaria with frequent relapses, treated, according

to the suggestion of Dr. J. M. Da Costa, of Philadelphia, with sulphurous acid with alkaline baths at night, a notable improvement occurred on the second day, and a cure without subsequent relapse was accomplished by the end of the second week.

Drugs which acted upon the nervous system, such as quinine and others, had both caused and cured urticaria. Some patients were intolerant of quinine, and invariably suffered from its use.

Dr. F. D. LENTE had noted cases of malaria ushered in by premonitory urticaria. In one peculiar case the urticaria appeared every evening at seven o'clock, and was cured by ten-grain doses of quinine.

Belladonna and atropine had been used in doses sufficient to produce flushing of the face. The reader—Dr. Fox—had seen less benefit from atropine than from belladonna.

Salicylate of sodium in doses of one grain every hour had relieved the disease, but larger doses had more frequently produced it.

The use of arsenic had given rise to contradictory reports. Bromide of potassium had been effective. Drop doses of co-paiba had been used in vain by himself as well as by others.

The use of these various remedies, and of half-drachm doses of ergot, showed that the treatment of urticaria was empirical, and the good results reported were often attributable to careless observation and to self-cure. The proper treatment depended upon the etiology.

Dr. ROCHESTER stated that he had seen a good deal of urticaria, and had found that an emetic such as ipecac was much more efficacious than other remedies. It was possible that the diaphoretic action had something to do with it. He had placed a patient upon a simple milk diet, taking four or five quarts a day, with much benefit.

The report on prize essays was then made. But one essay had been presented, the title being Cancer. The committee making the report stated that the essay was well written, but its author, by quotations from a previous prize essay which he had written, had revealed his identity and had thus debarred himself from receiving the prize.

Dr. Rochester moved that prize essays be printed in future. The motion was carried.

Drs. Hutchinson, Strong, and Ely were announced as Committee on Inaugural Address.

The PRESIDENT then announced as *Nominating Committee*—1st district, Dr. F. A. Castle, of New York; 2d, Dr. P. R. H. Sawyer, of Westchester; 3d, Dr. M. Perkins, of Schenectady; 4th, Dr. Conant Sawyer, of Essex; 5th, Dr. J. D. Spencer, of Jefferson; 6th, Dr. George Douglas, of Chenango; 7th, Dr. H. D. Didama, of Onondaga; 8th, Dr. F. F. Hoyer, of Erie; and Dr. S. O. Vanderpoel, of New York, from the society at large.

THE PATHOLOGY AND RADICAL CURE OF HAY FEVER.—Dr. J. O. ROE, of Rochester, read a paper on this subject, in which he reviewed the theories of the disease, viz.: The pollen theory of 1819; the view of Helmholtz of 1868; the animalcule theory of Salisbury of 1873; and the nervous theory of Dr. Beard, in which the effect was mistaken for the cause.

Dr. Blakeley had shown that the pollen of all plants—especially of the graminaceæ—would excite the disease; and that less than $\frac{1}{100}$ of a grain was sufficient.

A common cause, in a susceptible patient, was any variety of dust; thirty forms of "diversified invisible nastiness," as Tyndall called it, had been enumerated.

The recurrence of the disease upon the same day and hour in each year indicated pollen as a cause, as botanists had shown that the ripening of plants occurred yearly with great precision.

The mucous membrane covering the turbinated bones was a form of erectile tissue, and might be styled turbinated corpora cavernosa. Irritation of this tissue was reflected to the trachea and other distant organs. In five cases in which this erectile tissue had been removed, radical cure had resulted.

In the discussion, Dr. WEX asked Dr. Roe what method he employed in removing the hypertrophied tissue. Dr. Roe replied that he used the galvanic cautery or the wire écraseur.

Dr. SABIN, of Troy, remarked that he knew a lady who had a severe attack of hay fever every year, until her removal to Iowa, where she had been for several years entirely exempt from the disease.

Dr. Roe replied, "She left the cause of the disease."

Dr. PROUT, of Brooklyn, stated that he had obtained good results from the application of chromic acid to the nasal mucous membrane, using bicarbonate of sodium immediately after.

Dr. GREEN, of Homer, referring to the effect of the pollen of rag-weed in cases of hay fever, stated that in his neighborhood rag-weed grew in abundance, and that, while some patients left there for relief, others came to Homer for the same purpose.

A NEW WAY OF APPLYING REMEDIES TO THE EYE.—Dr. W. F. MITTENDORF, of New York, read a paper on this subject. Solutions of the alkaloids in simple water were hard to keep, being liable to develop fungous growths. The use of granules might irritate or injure the cornea, and their solution took time. Vaseline was bland, but was applied to the eye with difficulty, and powders mixed with it might settle. Eserine, in particular, was hard to mix with vaseline. He preferred the use of impalpable powders, but it was difficult to find a vehicle which would dissolve readily in the eye. Starch, dextrin, sugar, and sugar of milk were for different reasons found objectionable. He had found powdered gum arabic with sugar of milk satisfactory. Eserine, which was deliquescent and gelatinous, was first dissolved in water, then mixed with sugar of milk and reduced to a powder, and then rubbed up with gum arabic. The various alkaloids thus prepared were, as a rule, to be used by the physician only. They could be dissolved in water in a watch-glass, or used dry. They could be dispensed in solution in water, when left for the patient to use.

The speaker then showed an EYE SPECULUM, which could be expanded by means of a slide on projecting arms, which might be vertical or horizontal.

Dr. T. R. POOLEY, of New York, objected to what had been said against the use of vaseline, which he had found serviceable.

Dr. D. B. ST. JOHN ROOSA had never regarded fungi in solutions for the eye as in any respect harmful.

Dr. SQUIBB said that salicylic acid, which was soluble in three hundred parts of water, prevented the growth of fungi. Fungi subsisted at the expense of the alkaloid, and hence weakened the solutions. The difficulty with eserine could be overcome by using the salicylate of eserine, which did not deliquesce, and was not subject to attacks of fungi. Vaseline was not a good excipient, as it would dissolve nothing. Oleic acid was preferable, and the oleates of the alkaloids were soluble.

Dr. EMIL GRUENING, of New York, said that no fungi would form in a saturated solution of boric acid, which was of itself bland, and in which the sulphates of alkaloids were soluble.

Dr. MITTENDORF said that the advantage of mixture with powdered gum arabic was that minute doses could be regulated accurately.

Dr. POOLEY limited his use of vaseline to applications around the eye, but not in the eye.

SYPHILIS OF THE LABYRINTH.—Dr. DAVID WEBSTER, of New

York, read a paper in which he said that autophony seemed to be a symptom of such disease. He related two cases, characterized by nocturnal pain—both remarkable on account of the recovery of hearing. The voice, to others normal, sounded to the patient himself as if he were speaking into a barrel. Other collateral symptoms of syphilis existed in each case, and the treatment was anti-syphilitic, large amounts of mercury and iodide of potassium being used.

SYPHILITIC INFLAMMATION OF THE MIDDLE EAR, LABYRINTH, AND ACOUSTIC NERVE.—Dr. O. D. POMEROY, of New York, read a paper in which he said that rapid or sudden loss of hearing was characteristic of a syphilitic affection, which was often painless. There might be nocturnal pains extending down the arms. Double vision and strabismus, affections of the facial nerve, hemiplegia, and paraplegia might occur. Ordinarily there was no discharge from the ear, but occasionally there was suppurative otitis, with perforation of the membrana tympani, caries, and gummata. The drum membrane was usually dry, and a little reddened, and with infiltration, causing more opacity than in ordinary inflammation. It was difficult to locate the lesion. It was usually in the middle ear, and it was hardly justifiable to use the term labyrinthine disease, except after an autopsy. Syphilis was to be suspected from its collateral symptoms, and from the effects of treatment. In syphilitic disease the infiltration was out of proportion to the amount of inflammation. Vertigo and nausea were not characteristic.

Dr. HENRY W. WILLIAMS, of Boston, was introduced by the Business Committee. Dr. Williams said: "We came here to see how you do, and to enjoy for ourselves the privilege of meeting the chosen delegates of the Empire State. I congratulate the society for the success which it has already attained."

Dr. B. F. UPHAM, of Vermont, was then introduced, and spoke of the interest manifested in his State with reference to the workings of the New York State Medical Society, particularly during the past year, in the disposal of the question of Medical Ethics.

Dr. ROOSA thought that the differentiation of disease of the middle ear from labyrinthine disease was important. Disease of the middle ear was more amenable to treatment. It was not rare to find both parts diseased at once, and these mixed cases were not easy to determine. Absolute deafness, as noted by the author of the first paper, was an important guide. The note C of the tuning-fork, where there was still some hearing, was heard well through the air, but not through the mastoid. We had also a guide in a subjective symptom—the deaf often heard well in a noisy place. Instances of this fact were given by Dr. Roosa, which would indicate disease of the middle ear.

Dr. HOWELL, of Buffalo, regretted that the whole paper had not been heard. In these cases it was difficult to say how much was cause and effect, and how much mere coincidence.

Dr. SEXTON had observed that in many cases the patient, after hearing well at a given time, suddenly became autophonus after an act of swallowing. He had seen no suppurative case, no eye complications, and no recurrent attacks, as mentioned by Dr. Webster. Vertigo and tinnitus aurium had not been persistent.

INFUSION OF JEQUIRITY (*Abrus præcatorius*) IN INVETERATE PANNUS.—Dr. GREENING had employed infusion of jequirity, after the formula used as a cosmetic in Brazil (thirty-two beans being infused in 500 grammes of cold water for twenty-four hours, then, after adding 500 grammes of warm water, filtered after cooling). This solution applied topically, as recently practiced by De Wecker, caused an inflammation and the subsequent disappearance of granulations, the application being painless and free from certain objections that had been urged against gonorrhœal inoculation. He had found it necessary to use the

fresh beans, as an infusion from the old ones proved inert. Cases were related of prompt and radical benefit from the treatment. The applications should be continued for about five days, and on their discontinuance the inflammation caused by them subsided promptly. During the first day there was no change; on the third day the conjunctiva was swollen, and the cornea became more opaque from increased vascularity; on the fifth day the opacity or the granulations disappeared.

A NEW TONGUE-SPATULA.—Dr. L. ELSBERG, of New York, reminded the meeting that, nineteen years ago, he showed the society a tongue-spatula which at that time he considered as scarcely calling for further change. The tongue-spatula, he remarked, was an instrument with which almost every one had found fault, and the handle of an ordinary spoon would serve quite as well as most of the many varieties of the instrument now in the market. The spatula he had formerly shown he had afterward found to be too wide, consequently pressing on the anterior palatine folds and causing nausea; moreover, the angle formed by the blade and the handle should be obtuse, instead of a right angle, as in the instrument formerly shown. The spatula now shown measured ten inches in length. The two blades might be either jointed or fixed. Each blade formed an arc of quite a large circle, and was fenestrated for the insertion of an instrument for the fixation of the jaws. One blade was an inch wide, and the other half an inch. In the use of the instrument it was not proper to push downward and backward, but to pull from behind forward, and from below upward.

A SINGLE CASE OF OVARIOTOMY.—Dr. DAVID LITTLE, of Rochester, related a single case of ovariectomy, which, he thought, demonstrated the uselessness of Listerism and the paramount importance of strict cleanliness and free access of fresh air to the patient during the after-treatment. In the case related, the windows were left open, and the admission of sunlight was well provided for. The reader laid much stress on these precautions.

Evening Session.

Dr. SQUIBB moved that the meeting go into Committee of the Whole on the special order of the evening, his idea being to promote freedom of debate. The motion was carried.

Dr. A. HUTCHINS, of Brooklyn, was called to the chair. The Secretary read the resolutions offered in the morning session by Dr. Squibb.

Dr. S. O. VANDERPOEL, of New York, moved that no one be permitted to speak on the question unless his name had been registered. The motion was carried.

Dr. Squibb said, in assuming the responsibility of these resolutions, some explanation was required. The medical profession of this State is associated into societies under and in pursuance of the laws of the State. The first section of the law organizes the county societies. The second section creates the Society of the State of New York. By authority of this law both the primary and the secondary bodies make by-laws for themselves. The constitution adopted by the society was called the Code of Medical Ethics. It becomes the supreme authority of this State, and the analogue of the civil constitution of the State. There is one, and only one, way in which a change can be made in the constitution. It must originate as a proposition only in the secondary body, and be ultimately decided in the primary bodies. If the Legislature of the State should adopt a new constitution without submitting it to the people, it would be denounced as an act of usurpation. The committee was appointed last year to suggest amendments. This committee reported not suggestions, but a substitute for the former constitution. Just here the irregular and unlawful action of the committee began. They pressed the report upon the society for immediate action.

(To be concluded.)

NEW YORK ACADEMY OF MEDICINE.

A STATED meeting was held December 21, 1882, FORDYCE BARKER, M. D., LL. D., President, in the chair.

THE NORTHWESTERN MEDICAL AND SURGICAL SOCIETY presented to the Journal Fund of the Academy the sum of one hundred dollars.

Dr. AUSTIN FLINT presented, on behalf of Mr. James Platt White, a marble bust of the late Professor JAMES PLATT WHITE, of Buffalo, and offered the following resolution, which was seconded by Dr. Thomas:

"Resolved, That the New York Academy of Medicine accepts with much gratification the marble bust of the late Professor James Platt White, and accords to it gladly a permanent place in the hall of the Academy."

The gift was accepted by the President in behalf of the Academy.

Dr. T. GAILLARD THOMAS then read a paper entitled A CONTRIBUTION TO THE SUBJECT OF THE REMOVAL OF THE UTERINE APPENDAGES (TAIT'S OPERATION) FOR RECURRENT PELVIC INFLAMMATIONS: WITH PATHOLOGICAL SPECIMENS. [Dr. Thomas's paper appeared in our issue of January 13th, p. 32.]

GASTRO-ELYTROTOMY (THOMAS'S OPERATION) COMPARED WITH OÖPHOROHYSTERECTOMY (PORRO'S OPERATION).—Dr. HENRY J. GARRIGUES read a paper with this title, in which he stated that, since four years ago, when he wrote a monograph on gastro-elytrotomy, this operation had been performed three times for the delivery of women, and once for the removal of a large calcified fibroma of the uterus; previous to that date the operation had been performed four times. From the eight operations there had been four recoveries and four maternal deaths. The chief objection to gastro-elytrotomy seemed to be that it could not be carried out according to the strict rules of antiseptic surgery; but, since the percentage of deaths in Porro's operation had been greater than that in Thomas's, would it not be well, he asked, to give the latter operation a fair trial? Moreover, although gastro-elytrotomy did not admit of the application of Listerism in all its details, yet great benefit might be derived from the rules laid down by Lister, as regarded the disinfection of the hands, of the instruments, etc. Attention was directed to the danger of hæmorrhage in the two operations, it being much greater in Porro's than in Thomas's. Reference was also made to the means which had been resorted to for controlling hæmorrhage when it had occurred, such as the use of the elastic ligature, of the écraseur, the soft rubber tube of Esmarch, etc. The danger from shock was less in gastro-elytrotomy than in Porro's operation, while danger from exhaustion was greater in the latter operation on account of suppuration, which almost inevitably occurred. Peritonitis, which was the greater danger in Porro's operation and in Cæsarean section, was not likely to occur in gastro-elytrotomy. Several accidents were mentioned which were liable to occur in either operation, such as heart-clot, pulmonary œdema, tetanus, etc. The intra-peritoneal method of treating the stump in Porro's operation had not in the least increased the percentage of recoveries; out of five cases in which it had been adopted, four of the patients died. One advantage possessed by oöphorohysterectomy was the fact that it could be done before dilatation of the cervix had taken place, and before the patient had lost any strength in ineffectual efforts at expulsion through the natural channel. In most cases, however, the patient was not seen until after she had been in labor for some time. Porro's operation required many assistants, and made the woman sterile at once, while gastro-elytrotomy required a less number of assistants, and allowed of the bearing of three more children at least. The surroundings of the patient should not be left out of consideration. He would not hesitate to do the Cæsarean sec-

tion in the country even without any assistants. In hospital practice, however, he would prefer to do Thomas's operation if the cervix were dilated or dilatable. If it were necessary to operate before dilatation could be effected, Müller's operation should be adopted. The general condition of the patient might indicate one operation in preference to the others.

To summarize: 1. Thomas's operation, or gastro-elytrotomy, had been performed eight times, one half of the mothers recovering, and all of the children surviving except two, which were dead before the operation.

2. Gastro-elytrotomy might be performed with many antiseptic precautions.

3. Porro's operation had given less favorable results than gastro-elytrotomy.

4. The danger from hæmorrhage, peritonitis, and septicæmia was greater in the Porro-Müller operation.

5. The intra-peritoneal method of treating the stump in Porro's operation had been carried out in five cases, resulting in death in four cases.

6. One of the advantages of the Porro-Müller operation was the possibility of operating before the commencement of labor.

7. Gastro-elytrotomy was less repulsive to the mind of the patient, and less difficult of execution, and could be performed with less assistance. It did not render the woman sterile. All those who had performed it on the living subject or on the cadaver recommended it.

8. In country practice, the old-fashioned operation of Cæsarean section was in most cases preferable to any of its substitutes.

Both papers being before the Academy, Dr. WILLIAM M. POLK remarked that, if there yet remained anything to be said upon the subject of gastro-elytrotomy, it was, in the first place, with reference to placing the operation; and, in the second place, to disabuse the minds of its opponents with regard to the supposed difficulties in its performance as compared with Cæsarean section, Porro's operation, or Porro-Müller's modification. With regard to the position which the operation should take, he believed that it was a mistake to put it in direct antagonism to Cæsarean section, or any one of its modifications. There were indications for the Cæsarean operation, or some one of its modifications, in certain cases, which rendered it the only operation which could properly be performed. On the other hand, Cæsarean section, or some one of its modifications, had heretofore been performed in certain cases in which it should to-day give place to gastro-elytrotomy. For instance, in cases in which the child could not be extracted through the cervix for want of dilatation or other cause, Cæsarean section, or some one of its modifications, must necessarily be adopted. With regard to the difficulties of the operation, Dr. Polk traced in detail the successive steps to be taken in both gastro-elytrotomy and the Porro-Müller operation until the child was reached, comparing the difficulties and the dangers of the one with those of the other. One danger attending Porro's operation which did not exist in gastro-elytrotomy was the possibility of finding a coil of intestine in front of the uterus. Again, there was great danger of peritonitis arising from the necessity for entering the peritoneal cavity. There was also much greater danger of hæmorrhage after the uterus had been reached than in gastro-elytrotomy. The liability to injury of the epigastric artery, of the bladder, of the ureter, of the vessels of the broad ligament, and of the uterine artery, in gastro-elytrotomy, was slight, and, if it should happen, it need not be attended by any serious consequences. If necessary, the incision in gastro-elytrotomy might extend from any point between the crest of the ilium and the last rib to about an inch and a half above and within the spine of the pubes. A cutting instrument should not be used after

the transversalis fascia had been reached. He believed that the greatest difficulty attending this operation related to tilting the uterus sufficiently to allow of the extraction of the child. Dr. Polk also referred to the method of entering the vagina in gastro-elytrotomy, to the relation of the pelvic organs to one another at full term, to the method of closing the external wound and inserting a drainage tube at the lower angle to extend into the vagina, etc.

Dr. ISAAC E. TAYLOR stated that since 1870 there had been four different operations devised to take the place of Cæsarean section, aside from that of gastro-elytrotomy—viz., that of Baudelocque, Porro's operation, and that of Taylor and Sanger. Notwithstanding these numerous substitutes, Dr. Taylor believed that, when the conditions were favorable for the old classical operation of Cæsarean section, and it were possible to perform it early, the results would be better than from any other method which could be adopted. He then reviewed the statistics of the Porro operation, of Cæsarean section, and of gastro-elytrotomy, and stated that in the case of the first- and last-named operations the percentage of successes had been about one half, whereas in Cæsarean section, unless performed under the most unfavorable conditions, the percentage of successes had been greater. He was of the impression that when, in addition to the dangers and difficulties already mentioned as attending gastro-elytrotomy, we considered the possibility of having yet to perform embryotomy, turning, etc., it would be found that Porro's operation possessed many advantages, and, in certain cases, should be preferred; but, in general, Cæsarean section should be adopted. In the infantile pelvis, the equally contracted pelvis, and in that presenting the male form, he thought no other operation would offer prospects of as good results as would gastro-elytrotomy.

Dr. A. J. C. SKENE wished simply to make one remark with reference to his case, which had been mentioned by Dr. Garrigues in his paper. That was, that the patient really died of exhaustion, the result of previous operations, and not of shock, the result of gastro-elytrotomy. He thought it was an abuse of statistics to use them in comparing gastro-elytrotomy with Cæsarean section and its modifications before the former had had a more extensive trial than had yet been given it. The possible obstacles to be met with in the extraction of the child, as alluded to by Dr. Taylor, had no existence in fact. He felt convinced that, when gastro-elytrotomy shall have had a fair trial, it would be found to possess infinite advantages over the other operations.

Dr. WILLIAM T. LUSK remarked that he had witnessed Porro's operation but once, and had never seen gastro-elytrotomy performed. Notwithstanding all of the advantages which had been expected from Porro's operation, the statistics showed a percentage of but forty-seven recoveries to fifty-five deaths, and it was a question whether we could not properly say of it, as was said of Belshazzar, that it had been weighed in the balance and had been found wanting. Although he was of the impression that in suitable cases gastro-elytrotomy, possessed many advantages over the other operations, yet a more extended trial of the operation would be required before we could feel positive that it possessed in fact the superiority which had been claimed for it. There were cases, at any rate, in which it would be improper to perform gastro-elytrotomy, and it would be necessary to have an alternative. Did the old classical operation, he asked, deserve the abuse which had been heaped upon it? He believed that the bad results which had attended it during the last centuries were due to the fact that the operation had almost invariably been performed in hospitals, and under such conditions as would render death nearly a certainty. Statistics showed that in the cases in which the uterine wound had been sewed up the results had been as good as those in the

other operations. It was well known that two peritoneal surfaces healed readily, and it had been proposed to utilize this fact in order to get ready union of the wound in Cæsarean section, by dissecting up the peritonæum to a distance of about two fifths of an inch on each side of the incision into the uterus, and then take out a melon-shaped piece of the organ and close the wound with the peritoneal flaps between its edges.

Dr. WALTER R. GILLETTE remarked that the operation of gastro-elytrotomy was one of the simplest and easiest to perform of any in abdominal surgery, and he thought that any person witnessing it would feel convinced that it was attended by infinitely less danger than was Cæsarean section or its substitutes. Although the wound in the uterus might be sewed up after Cæsarean section had been performed, yet there was the liability, as after even normal labor, of failure on the part of the organ to contract, allowing the wound to gape and give rise to peritonitis.

Dr. T. ADDIS EMMET remarked, with regard to Tait's operation, that he had had no personal experience in its performance, nor had he seen it done. He had, however, seen a number of patients who had been operated upon by Mr. Tait, and in his laboratory there were as many as sixty specimens which had been removed probably within eighteen months. Dr. Emmet had wondered where all these cases had come from, and what was their explanation. Some years ago he made a great many post-mortem examinations at the Immigrants' Hospital, and found the condition described by Mr. Tait in not more than a dozen cases. He had asked Mr. Tait particularly as to what were the indications for the operation. He was unable to give any reply except that in all cases of chronic pelvic inflammation which did not get well within a reasonable length of time he opened the abdomen, and invariably found the Fallopian tubes to contain a large quantity of serum or of pus. Dr. Emmet had also been much surprised at the remarkable success of this operation as performed by Mr. Tait, and at the wonderful improvement of the patients. Notwithstanding these facts, he was not yet prepared to do the operation until there had been a little more light thrown upon the subject.

The discussion was closed by Dr. GARRIGUES, who remarked with regard to the modification of Cæsarean section, as referred to by Dr. Lusk, that he believed it had a limited field of usefulness. In the case in which he had performed Cæsarean section, it was found at the post-mortem examination, two days afterward, that union had taken place by first intention. It was well known that gastro-elytrotomy had been essentially performed many years ago by Ritgen and Baudelocque, but it had been so entirely changed by Dr. Thomas that we should accept it as his operation, and study the results from that date.

Reports on the Progress of Medicine.

QUARTERLY REPORT ON ORTHOPÆDIC SURGERY AND DISEASES OF THE JOINTS.

No. XI.

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THE USE OF HOT WATER IN INFANTILE PARALYSIS.—Mr. Lee ("Brit. Med. Jour.," Dec. 2, 1882) advocates the use of hot water, applied twice a day to the paralyzed limb. He states that by this method of treatment the limb retains its plump condition, and in its growth and development keeps pace with the sound limb. He does not, however, state the condition of the paralyzed muscles.

ON THE SELECTION OF CASES FOR FORCIBLE MOVEMENT IN THE TREATMENT OF STIFF JOINTS.—In a paper read by Mr. Adams before the surgical section of the British Medical Association on this subject (*Ibid.*, Oct. 7, 1882), he first defines what is to be included in this classification, namely, those joints that are rendered "stiff" by inflammatory thickening of the tissues external to the joint, including, however, the capsular ligament, and also those stiffened by inflammatory adhesions pressing between the articular cartilages. Cases of bony or fibrous ankylosis, properly so called, are not included.

He considers that the existence of the articular cartilage is essential to the restoration of useful and permanent motion. The healthy, or nearly healthy, condition of this structure may generally be inferred from the clinical history of the case. He makes the following classification, placing in order from the most favorable to the most unfavorable, for treatment by forcible movement:

I. Cases of traumatic origin in healthy constitutions, generally occurring in the adult.

II. Cases after rheumatic inflammation of the joint.

III. Cases of strumous disease of the joint.

IV. Cases of acute suppurative inflammation, of pyæmic origin, and suppurative inflammation in the neighborhood of and extending into the joint.

V. Cases consequent upon muscular contraction.

CLASS I.—Stiff joints, of traumatic origin, are, as a general rule, favorable for treatment, and permanent useful motion is obtained in most cases, only one or two operations being required. In this class suppurative inflammation and ulceration of the articular cartilages are usually absent. This class he divides into: *a*, cases of stiff joints, occurring after dislocations which have been reduced; *b*, cases of stiff joint, or cases in which motion is very limited, in unreduced dislocations of long standing; *c*, after fracture into or in the neighborhood of joints; *d*, occurring after bruises, followed by inflammation of the joint.

CLASS II.—In this class, the rheumatic, as in the preceding, there is an absence of suppuration in the joint, and ulceration of cartilages, and useful motion may usually be obtained after one or two operations. Cases in this class may be arranged in the following group: *a*, Cases of stiff joint, occurring after acute rheumatic inflammation; *b*, occurring after gonorrhæal rheumatism; *c*, occurring after chronic rheumatic inflammation. In some of these cases, of long standing, structural changes in the articular cartilages gradually occur, and the joint becomes so firmly ankylosed that no treatment will avail. Cases associated with articular enlargement, as in chronic and rheumatic arthritis; motion may be restricted by these changes, although the articular surfaces are smooth and polished.

CLASS III.—Cases belonging to this class, stiffness due to strumous disease, are essentially unfavorable for treatment by forcible movement, in consequence of the destructive character of the disease. Even when external abscess does not occur, the disorganization is usually complete, and either fibrous or bony ankylosis may be looked for. In only a limited number of cases, in which the disease has been arrested in an early stage, should any attempt be made to obtain motion.

CLASS IV.—Cases of stiff joint from pyæmic origin, as well as those resulting from suppurative inflammation, commencing in the neighborhood of the joint, and subsequently extending to the articulation, are unfavorable for treatment.

CLASS V.—Cases of stiff joint due to muscular contraction should never be submitted to treatment by forcible movement. They will certainly yield to tenotomy and gradual mechanical extension.

He does not consider that either great force or any machin-

ery is ever necessary in the "breaking down" of joints. He has seen many failures—cases in which the joints have quickly re-stiffened, and complete bony ankylosis resulted, and he has never witnessed any good results which would justify the employment of such an amount of force. The accidents which have been known to follow the employment of an extreme degree of force are fracture of the long bones, separation of the epiphyses, transverse fracture of the patella, laceration of the ligamentum patellæ, rupture of the popliteal vessels, laceration of the skin, and also laceration of all the superficial structures. Mr. Adams adopts the gradual method in all severe cases, using at the first operation only just sufficient force to obtain the least possible movement, and then, at successive operations, repeated at intervals of from two to three weeks, tears through other adhesions, and gradually increases the range of motion, until the full extent is obtained. After each operation he applies hot-water dressings, and to the leg always employs weight and extension. Absolute rest is essential.

TREATMENT OF HIP-JOINT DISEASE.—Mr. E. Noble Smith (*Ibid.*, Oct. 28, 1882) draws attention to the defects in the splints generally used in the treatment of disease of the hip joint, in that they do not overcome the contraction of the psoas and iliacus muscles. From the line in which traction is made they increase rather than diminish the intra-articular pressure; and, although the limb can be brought down into an apparently straight position, it is at the expense of the lower lumbar vertebræ, which are arched forward (lordoses). To obviate this, he advocates the use of an apparatus extending from the pelvis to the shoulder behind, with an abdominal band in front. This is to prevent tilting forward of the pelvis. In addition to the usual hip-splint, both portions of the apparatus are attached to a common hip-band. The movements of the hip portion are regulated by a double rack-joint.

THE EARLY TREATMENT OF FLAT-FOOT.—Mr. Bernard Roth (*Ibid.*, Nov. 18, 1882), in some remarks on flat-foot, adopts the following classification from Mr. Paget:

1. Cases in which it is possible to restore the foot completely to the normal shape, by passive manipulations, without any decided force being employed.

2. Cases where the tarsal bones have become more or less fixed in their displaced position by fibrous ankylosis, shortened ligaments, or osseous deformity, and which require more or less severe operative interference under anæsthetics.

3. Intermediate cases, in which partial restoration of the normal plantar arch is possible by passive manipulations.

He deals only with groups 1 and 3. He considers that the same constitutional relaxed habit of body that predisposes to lateral curvature of the spine also tends frequently to produce flat-foot. The restoration and maintenance of the plantar arch is most important. If the foot can be more or less completely restored to its natural position, boots, properly shaped to the feet, should be worn. The human foot touches the ground, not only at the heel and the lower surface of the metatarso-phalangeal joints and the toes, but also by the whole outer border of the sole, for the width of one half to one inch. It is hence essential that this portion of the sole should also touch the ground through the boot. Boots should, therefore, be made without heels. A wedge-shaped oval pad, with straight side forming the base, and corresponding in shape to the normal hollow of the plantar arch, is fixed inside the boot. Felt is the best material for the pad. In no case is the pad to extend across the "waist" of the boot, as this interferes with the normal transverse plantar arch. Laced boots only should be employed. The arch being preserved to a great extent by the action of certain muscles, the tibial and peroneal, these should be strengthened and developed by exercise, massage, etc. Atten-

tion should also be paid to improving the general health of the patient.

BONE-SETTING.—Mr. Howard Marsh (*Ibid.*, Oct. 7, 1882) concludes a paper on the cases usually benefited by bone-setters as follows:

1. There are a large number of cases in which manipulation proves itself one of the most successful methods in the whole field of minor surgery.

2. It is an error to regard manipulative treatment as necessarily a process of violence. In the majority of suitable cases it can be carried out with such slight force that the chance of doing injury is extremely small.

3. It is chiefly useful in cases in which healthy joints have their movements restricted, and are rendered painful by some external agency, such as—and very commonly—adhesions, or by rigidity of muscles, slipped tendons, and so forth. In the knee, however, internal arrangement must be carefully borne in mind.

4. We must remember how likely it is that adhesions will form after sprains, dislocations, and fractures, or after any injury leading to the exudation of lymph in the sheaths of tendons and other soft parts. We must prevent their formation—as far as we can—by gentle passive movements of the joint shortly after the injury, where this is possible. We must not keep joints too long fixed by splints and bandages, and we must not dismiss patients till we are sure no adhesions or rigid muscles remain to impede movement.

5. Manipulation will seldom do good; it will generally do harm in cases in which joints have been seriously diseased. In cases of firm fibrous ankylosis, it is quite unlikely to restore movement. It may, however, sometimes be employed to improve the position of the limb.

6. Joints that are fit for manipulation are those which, after injury, or the slighter forms of inflammation, are habitually cool and free from considerable synovial swelling, or which look quite sound, or around which the tissues are brawny and the skin pale, or indistinctly dusky, and in which movement within a limited range is free and smooth. Mere pain, if the joint be cool and there are no signs of serious disease, by no means forbids manipulation. On the contrary, it is a strong reason for using it.

7. A certain number of instances are met with in which no exact diagnosis can be made, but in which there is no evidence of structural disease, though the limb is stiff and disabled. In such cases, if manipulation be employed, an anæsthetic being given, and the limb being carried in all directions through its normal range of movement, we shall not rarely effect a cure, which, however, we may not be able to explain. Some of these are examples of hysteria, some deep-seated adhesions, some slipped tendons, and some simple muscular rigidity.

8. It is advisable, as a rule, to use an anæsthetic, not only to save the patient pain, but also, by relaxing the muscles, to bring the effort used to bear entirely on the source of abnormal resistance, whatever it may be. And, during manipulation, joints must always be flexed before they are extended.

9. We must often supplement manipulation with continued passive movements, douching, shampooing, etc.

10. Lastly, I will venture to refer to the importance of attending carefully to the minor affections about the joints. By being remiss in these cases we open the door to bone-setting, and are apt to commit oversights that we can not fail to regret.

Other Noteworthy Papers.

BERG, H. W.—The etiology of congenital talipes equinovarus. "*Arch. of Med.*," Dec., 1882.

BERRY, J. J.—Juxta-epiphysal congestion in its relations to hip disease. "*New England Med. Monthly*," Oct., 1882.

BRADFORD, E. H.—A case of double osteotomy and osteoclasis. "*Boston Med. and Surg. Jour.*," Dec. 28, 1882.

BUSCH, F.—Eine neue Methode zur Resektion oder dem Évidement des Fussgelenks bei fungöser Entzündung. "*Centralbl. f. Chir.*," Oct., 14, 1882.

CHURCHILL, F.—On the importance of continuous extension after tenotomy in cases of congenital talipes with tarsal deformity. "*Lancet*," Sept. 30, 1882.

DEARDEN, J.—Caries of the atlas and axis. *Ibid.*, Oct. 7, 1882.

FABIANI, G.—Trattamento curativo di un doppio ginocchio valgo in una bambina di cinque anni. "*Giorn. Internaz. delle Sci. Med.*," iv, 5-6, 1882.

FOX, R. D.—On bone-setting (so called). "*Brit. Med. Jour.*," Nov. 18, 1882.

GIBNEY, V. P.—Some of the more common rachitic deformities. "*Independent Practitioner*," Jan., 1883.

GUÉRIN, J.—L'ostéotomie et la tarsotomie dans le traitement du pied-bot congénital. [*Acad. de Méd., Paris.*] "*Progr. méd.*," Sept. 30, 1882.

JACKSON, V.—Excision of joints. "*Lancet*," Oct. 7, 1882.

NEPVEU.—Résection du poignet. [*Assoc. franç. pour l'avancem. des sci.*] "*Progr. méd.*," Sept. 30, 1882.

ROBERTS, M. J.—Elastic tension and articular motion in Pott's disease. "*Med. News*," Oct. 14, 1882.

VANCE, R. A.—The radical cure of hip-joint disease. "*Columbus Med. Jour.*," Nov., 1882.

WARREN, J. C.—Excision of the wrist joint. "*Boston Med. and Surg. Jour.*," Oct. 26, 1882.

Miscellany.

A NEW OPERATION FOR THE REMOVAL OF THE DEVIATED SEPTUM IN NASAL CATARRH.—Dr. W. C. Jarvis ("*Arch. of Laryngol.*," Oct., 1882), after describing some of the usual operations for the relief of nasal deformities of this kind, advocates a procedure of his own. The instruments used are his own wire snare écraseur, transfixion needles, and a peculiar scissors for excising portions of the septum. The écraseur consists of a long and short cannula, the latter gliding over a screw-tread cut on the former.

A milled nut, fitting this thread, is intended to push the outer cannula before it. Well-tempered steel piano-wire is drawn through the large cannula, and its ends are attached to the retention-pins on the small one. As the outer cannula can not turn, there is no twisting of the wire loop formed. The transfixion needles are pointed like the ordinary gloves' needles. Four sizes are made, running from one to four inches in length. Each number has a straight needle, and three others of varying curves. They are all furnished with a light, convenient handle. The septum scissors are light instruments with the blades curved almost at a right angle. Their shape enables the operator to obtain an easy view of the tissues to be removed. One instrument is made after the pattern of Richardson's mouse-toothed scissors; the other has a sharp beak upon the upper blade, which sinks into the tissue of the septum, and thus enables the scissors blades to retain their grasp while cutting through cartilage. A ring in the fixation blade is intended to slip over the middle finger, while the knob on the movable blade is managed with the thumb. This simple arrangement enables one to hook and divide the cartilage of the septum with great facility.

The amount of tissue to be removed is generally estimated by comparing the redundancy with the unaffected portion of the septum. This having been carefully determined, the base of the cartilaginous projection or hypertrophied tissue is pierced with the transfixion needle till the point reappears. The wire loop of the écraseur is now passed over the point of the needle projecting into the nostril, and tightened

around the transfixed tissue by forcing up the outer cannula with a movement of the finger against the milled nut. A few turns of the nut cause the wire to sever the transfixed tissue. When the posterior surface of the deviated tissue is not well defined, it is advisable to use a curved needle in order to bring its point to view. A little practice will enable one to determine when complete transfixion has taken place, by the change in resistance, appreciated by the touch where the point of the needle can not be seen.

The discomfort caused by this operation will vary with the patient's susceptibility to pain, and the amount of care used in manipulating the *écraseur*. Patients, as a rule, declare they do not suffer. A painless operation by this method may be converted into an agonizing one by the impatient movements of a rapid operator.

The hæmorrhage is trifling if the operation is performed slowly. The employment of slow traction to prevent pain guards against hæmorrhage. The vascularity of the mucous membrane over the septum is very slight when compared with that of the turbinated tissues.

Localized and general thickenings of the mucous membrane situated anteriorly upon the triangular cartilage can be readily removed. The localized hypertrophies found over the vomer are sometimes difficult to remove, as the tissue is transfixed and snared when pictured in the rhinoscopic mirror. When the thickened tissue is in contact with the outer wall of the nose, the author uses the transfixion needle, which has its point at right angles with the shaft. By successfully hooking and snaring off pieces of the septum, it is possible to make an opening into the posterior nares. The patient practice of this method has enabled the author to perforate even an imperforate nostril without connecting the nasal cavities by an undesirable opening.

Especially brilliant results can be obtained in relieving the common deformity produced by displacement of the cartilage of the columna. Nasal stenosis caused by a deviated cartilage is always overcome by the careful practice of this method without perforating the septum. This procedure is strongly urged to supply the now general practice of perforating the septum with a punch. The great objection to this latter operation lies in the collection of inspissated nasal mucus around the edges of the opening.

CURATIVE AND MODIFYING ERYSIPELAS.—Dr. H. Dauchez ("Union. méd.," Oct. 5, 1882) seeks to show by certain facts the existence of a salutary erysipelas different in its results, but not in its nature, from ordinary infectious erysipelas. Thus, by the side of the erysipelas which kills the newly born and decimates the maternity hospitals of large cities there is another which may be called curative. The salutary action of erysipelas is shown by preference in certain chronic affections of the skin, which are all more or less rebellious to treatment. The modifying properties of erysipelas are sometimes strikingly shown in the cure of phagedenic chancre and of lupus; and also in certain old wounds, among which may be mentioned old ulcers of the leg, diffuse phlegmons with periarticular suppuration, benign tumors of the breast in process of suppuration, etc. This salutary action is nothing else than the substitution of a more acute and more easily controlled inflammation for one which is chronic. To imitate in a just measure the action of nature is the object which certain physicians have proposed in combating lesions rebellious to all treatment, by transforming them through the agency of irritant medication. Trousseau has reserved the name substitutive medication to the use of irritants applied directly to the cure of local inflammations, which are cured by causing an analogous inflammation—a therapeutic inflammation substituted for a primitive irritation. Thus, certain ophthalmologists have sometimes used the virulent pus of a blennorrhagia for the cure of the conjunctival granulations of pannus. Dr. Champouillon reports a curious case of chronic bronchitis modified as to its place, if not absolutely cured, by the providential appearance of a pemphigus or an urticaria. In the same work there is also found the report of a case of varioloid attacking a man who had suffered for a long time from a rebellious psoriasis. The varioloid cured the psoriasis.

It is, however, especially in dermatology that substitutive medication finds its most frequent application. It is by provoking traumatic inflammation that scarifications cure lupus; and it is by greatly exciting the sebaceous follicles that lotions of sulphur and black soap

cure acne. The violent itching of lichen and prurigo is made to yield to frictions of the oil of cade, which acts by causing an inflammation of the skin.

There is, then, nothing astonishing in the fact that erysipelas excites the vitality of the skin, and that certain surgeons have even sought to excite an erysipelas in cases where all other medication has failed. Maurice Raynaud, in his article on erysipelas in the "Dictionnaire de med. et de chir. prat.," says: "A very important fact, to which I wish to call particular attention, is the very common development of erysipelas in persons affected with lupus. When this shows itself in the course of the treatment it is a very favorable circumstance. It is generally only slight in intensity, and is cured by the aid of an emetocathartic." The author gives the history of a case of his own in which an extensive lupus of the left cheek, nose, and lips was cured by an intercurrent attack of salutary erysipelas. Fournier, in one of his clinical lessons, cites an almost exactly analogous case, and the author has collected several others, all from good authorities and all very striking—cases of phagedenic chancre, of diffuse joint trouble with abscess and fistulæ, one of cancerous tumor (*sic*), and one of elephantiasis.

The author asks whether there exists an essential difference in nature between a salutary erysipelas and a grave erysipelas. In other words, does the bacterium punctum described by Orth and Bouchard exist in both? Unfortunately, he is unable to answer the question. His interesting communication is summed up as follows:

1. Erysipelas acts on a great many diseased tissues by exciting a lively inflammation, and by this irritative and substitutive action renewing their vitality.

2. It modifies favorably certain ulcers, particularly phagedenic chancre and lupus; it may also destroy certain fungous tumors, dry up old suppurations, and cause elephantiasis to disappear.

3. This salutary action is, unfortunately, rare, but it ought not to be misunderstood by physicians, and in the case of rebellious ulcers (scrofulous and syphilitic) it should be respected.

THE ALCOHOL QUESTION.—The public medicine aspects of the alcohol question were lately discussed by Dr. N. S. Kerr ("Brit. Med. Jour.," Sept. 23, 1882) in a paper read before the British Medical Association. The influence of alcohol on the public health is a vexed question, one party maintaining that all indulgence in alcohol during health is injurious; the other, that its use in moderation favors physical well-being and robustness of morals. Alcohol may induce disease directly or indirectly. Examples of the former are seen in delirium tremens, acute and chronic alcoholic poisoning. Examples of the latter are seen in the diminished resisting power to disease shown by people of drinking habits. The government return of the sickness and mortality of European troops in the Madras army for 1849 showed 11.1 per cent. of deaths among the total abstainers, 23.1 per cent. among the temperate, and 44.5 per cent. among the intemperate. The vital statistics of several life-insurance associations, orders of Sons of Temperance and friendly societies, show figures equally favorable to the total abstainers. In some of the life-insurance societies the total abstainers receive a larger proportionate share of the profits than the non-abstainers, being considered much more favorable risks. From investigations made by the author, the conclusion is reached that the annual mortality from "personal intemperance," in the United Kingdom, is not far from 40,500. About twice that number die from disease, violence, accident, or starvation caused by the intemperance of others. Noble, of Manchester, attributes one third of the disease in England to intemperance. In the various work-houses the allowances for stimulants has been gradually reduced, with no bad effect upon the health of the paupers. How to deal with the habitual drunkard is an important and perplexing question. Drunkenness is the product of a physical agent, and produces a diseased condition of the system. The chief predisposing cause is heredity. There is but one means of cure—complete life-long abstinence from all intoxicating drinks. An interesting discussion followed the reading of the paper. Drysdale, of London, remarked that his observation led him to the conclusion that alcohol was one of the very commonest causes of death. He thought it would rank next to phthisis. In France, the most common cause of

death is alcohol. Carter, of Liverpool, observed that the fact that total abstainers lived longer than the so-called moderate drinkers was as well established as any undemonstrable fact could be. Seatliff, of London, remarked that the statistics of life insurance, as evidence of the beneficial results of abstinence from alcohol, harmonized with his own experience. The habitual use of alcohol as an ordinary article of diet is unnecessary for healthy persons. Medical men should have the courage of their convictions, and advise against intemperance. Darby, of Bray, thought that alcohol was valuable as a medicinal agent. The great increase in the consumption of aerated waters shows a movement in the right direction.

THE LEGAL RESPONSIBILITY OF MIDWIVES IN GERMANY.—Dr. V. Johannovsky ("Centrallbl. f. Gynäk.," Nov. 18, 1882) relates a case which concerned a midwife who was brought to trial accused of having neglected to take proper precautions for the safety of those in her care. She had attended a woman who had given birth to a child by a breech presentation, and, instead of sending for a physician, had interfered herself, and, by unskillful and protracted efforts, had probably destroyed a fully developed child. This testimony was given by four physicians, yet the court could not possibly connect the neglect of the midwife with the death of the child *in utero*, and therefore acquitted her of the charge which had been preferred against her, but, upon the motion of the prosecuting attorney, yielded the indictment to the jurisdiction of the civil magistrate, before whom the accused might be tried for exceeding her instructions as a midwife. With regard to the deficiency of conviction on the part of the judges, with reference to the result which followed the midwife's conduct, the testimony of the physicians was not received at its full value. The mind which is untrained in the details of obstetrics can not form a valid opinion as to the influence in labor of physiological and pathological factors. The argument, according to the legal comprehension, concerning the ordinances which prescribe punishment, is that they have reference only to human beings which are already born into the world. So long as the fœtus remains *in utero*, according to the views expressed, there can be no discussion concerning negligence on the part of a midwife concerning the security to life of this person, because he is not yet a person, but a fœtus. Hence, the midwife is responsible only for exceeding her instructions as such. According to this view of the case, a midwife may do any amount of damage to the life and limb of the child, but is not criminal if only no harm comes to the mother. When the case is turned over to the civil magistrate, the testimony of the district or ward physician is elicited, which is often of little value, and a decision is rendered which will vary with the severity or mildness of the judge. The Austrian ordinance, in which are contained the instructions to midwives, was passed June 4, 1881, and, by a singular oversight, no penalty was fixed for violation of its provisions. The necessity is evident for a law which shall protect the fœtus, and place proper restrictions upon the midwife.

THE MEDICO-LEGAL SOCIETY.—At a recent meeting of the Medico-Legal Society, the President, Mr. Clark Bell, in his inaugural address, made the following recommendations:

I recommend that we invite all superintendents of hospitals, asylums, prisons, charitable institutions, municipal boards, judges, district attorneys, and especially all physicians in charge of any asylum or institution, to communicate direct to this society any case coming to their notice or under their observation involving medico-legal questions, with a brief and clear statement of the facts, and the forensic questions involved, with such comments, views, or criticism as they desire to submit to this body.

That this invitation be also extended to members of both professions throughout the United States, also to public officials, courts, or officers of justice, regarding medico-legal questions involved in actual cases arising: which questions, statements, or communications will be laid before the body, its permanent commission, or select and appropriate committees, for action.

The French Society of Medical Jurisprudence has adopted a similar plan with great success, and their later bulletins are enriched by reports of cases submitted by physicians and advocates throughout

France, which has sensibly widened the field of the labors of that body.

The increase in our membership of gentlemen carefully selected from the two professions, who take an interest in forensic cases, renders it possible for this society to ably respond to such practical questions as might be thus submitted, by subdividing the work among the members in select committees, while reports of cases or papers based upon actual facts arising from time to time (and often judicial decisions) would find an abler analysis and wider diffusion in the scientific world than through any other channel.

The public press of to-day finds our proceedings of increasing interest to its general readers, and our own publications will attract increasing public attention as time progresses.

I recommend that the Legislature be memorialized by this society in favor of the passage of a law:

1. Creating an officer to be known as the State Chemist, with a salary of not less than \$5,000, and not exceeding \$10,000 per annum, sufficient to secure the best talent in the State for the office.

2. That he have charge of a laboratory to be furnished by the State, with suitable assistants and facilities for operating the same under proper provisions.

3. That, in every case arising in the State calling for chemical analysis, the material be sent to this officer under proper regulations, and that his reports thereon be used in criminal cases for the people and the defense; and that this be placed upon such a basis, both as to the proper selection of an officer (who should be non-partisan), and selected only for high attainments in his profession, and its administration, as would enable the people and the accused to have the most careful chemical analysis made, in every case requiring one, at the public expense.

These recommendations were unanimously adopted.

ARMY INTELLIGENCE.—*Official List of Changes of Stations and Duties of Officers of the Medical Department, United States Army, from January 20, 1883, to January 27, 1883.*—WATERS, WILLIAM E., Major and Surgeon. Detailed as member of Army Retiring Board, to convene at Fort Porter, Buffalo, New York, February 2, 1883. Par. 1, S. O. 21, A. G. O., January 25, 1883. — HEIZMAN, CHARLES L., Captain and Assistant Surgeon. Will be relieved from duty in the Department of the Columbia, and ordered to report to the Commanding General, Department of the South, for assignment to duty. Par. 10, S. O. 20, A. G. O., January 24, 1883. — KILBOURNE, H. S., Captain and Assistant Surgeon. Leave of absence for one month, with permission to apply for an extension of two months, is granted. S. O. 218, Department of Dakota, December 21, 1882. — PRICE, CURTIS E., Captain and Assistant Surgeon. Detailed as member of Army Retiring Board, to convene at Fort Porter, Buffalo, New York, February 2, 1883. Par. 1, S. O. 21, A. G. O., January 25, 1883. — SKINNER, JOHN O., Captain and Assistant Surgeon. Will report in person, at the expiration of his present leave of absence, to the Surgeon General for duty in his office. Par. 1, S. O. 20, A. G. O., January 24, 1883. — SPENCER, WILLIAM G., Captain and Assistant Surgeon. The leave of absence, on surgeon's certificate of disability, granted September 20, 1882, is extended three months on surgeon's certificate of disability. Par. 4, S. O. 16, A. G. O., January 19, 1883. — TAYLOR, MARCUS E., Captain and Assistant Surgeon. Will report in person, at the expiration of his present leave of absence, to the Commanding General, Department of the East, for assignment to duty. Par. 10, S. O. 20, A. G. O., January 24, 1883. — WOOD, MARSHALL W., Captain and Assistant Surgeon. Will be relieved from duty in the Department of the East at the expiration of his present leave of absence, and will report in person to the Commanding General, Department of the Columbia, for assignment to duty. Par. 10, S. O. 20, A. G. O., January 24, 1883. — WOOD, MARSHALL W., Captain and Assistant Surgeon. At expiration of present leave of absence, relieved from duty in Department of the East. Par. 1, S. O. 15, Department of the East, January 26, 1883. — WYETH, M. C., First Lieutenant and Assistant Surgeon. Is relieved from duty at Fort Snelling, and will proceed to Fort Stevenson, Dakota Territory, and report to the commanding officer of that post for duty. Par. 1, S. O. 15, Department of Dakota, January 18, 1883.

Lectures and Addresses.

A CLINICAL LECTURE ON
FIXATION OF MOVABLE KIDNEY.

DELIVERED AT THE NEW YORK HOSPITAL,

By ROBERT F. WEIR, M. D.

GENTLEMEN: To-day I have something to show you which is out of the ordinary course, and which will present some notable points of interest. It is a condition which is not often seen, namely, a kidney that has been dislocated from its proper position, and has become so loosely attached that it now presses upon the neighboring abdominal organs in such a way as to interfere with their functions, and produce constant pain of such severity that the patient has been unable to perform the ordinary duties of life with any comfort, and has hence been obliged to give up work. The patient is a woman, thirty-three years of age, married, who has had several children, the last being now eleven years old. About five years since she was caught between two cars which were being pushed together by hand, so that they did not come together with very great force, and she then received quite a severe concussion of the abdomen in an antero-posterior direction. She was confined to her bed for only a brief period, and then resumed her ordinary work. But about five weeks after getting about again she began to complain of pain in the right side of the abdomen, which also ran down the thigh, and up toward the shoulders. Not long after this pain commenced, she, or the physician who attended her, she is not sure which, noticed a tumor appearing on the right side of the abdomen, and this seemed to be located at about the seat of her pain, which was increased by handling the tumor. Occasionally hæmaturia would result for a while, and sometimes a uterine hæmorrhage would come on after an attack of severe pain. She has also had repeated attacks of vomiting and nausea. She has tried a variety of things to relieve herself, which have not succeeded, and, therefore, she has now come here a distance of over one hundred miles in order to seek a means of permanent relief.

This tumor of which she complains is a dislocated kidney, and it is a condition of affairs which is shown by statistics derived from autopsies, by those who are constantly making them, to exist in about one out of every seven hundred and fifty cases. But I think that the proportion of cases in which it occurs is really greater, for I myself have seen four such cases within the last year and a half. One very remarkable patient came in here some time since, with a movable kidney on the left side of the abdomen, and she said that some time previously a surgeon had tried to fix this lump to the abdominal wall by running a seton through it, and the only result caused by this operation was a little bloody urine. This kidney was subsequently removed in New Orleans, by Dr. Smyth, by an incision through the anterior abdominal walls. It is a curious fact that these floating kidneys are more frequently found on the right side than on the left, and they occur mostly in women. I have

copied a few figures from the statistics compiled by Landau,* who has given a good deal of attention to this subject. Out of 314 cases of movable kidney, he found 273 of them were in women, and of these, 152 were situated on the right side of the abdomen. This is not strange, for there are anatomical reasons for this increased frequency of the abnormality on the right side. One of the more important of these is that the renal vessels upon the right side are much longer than those on the left, and hence there is greater mobility possible on this side; and, again, the left kidney, besides having shorter vessels to sustain it, is pressed upon and held more snugly in position by the pancreas. Besides these, there are other lesser reasons which I have not now time to mention. Pregnancy, by elongating the mesocolon, and tight lacing have also been assigned as causes. It has been lately demonstrated that, aside from the pain caused by the pressure of the kidney on adjacent parts, the stretching and twisting, or kinking, of the long ureter will often cause a congestion and a damming up of the urine behind the point of obstruction, resulting in unpleasant symptoms. Some experiments of Kehrer, however, throw some doubt on this. There is another symptom of some value to us because of its medical aspect in some cases. From the pressure or dragging of the kidney upon the middle portion of the duodenum, certain obstinate dyspeptic symptoms and nausea or vomiting sometimes occur.

To relieve this condition of a displaced kidney, the first thing naturally thought of is to replace it, and this can easily be done by manipulation and pressure, the patient being in a recumbent position, and usually the kidney slips back into place with little or no pain, but in the present case considerable pain is then experienced. But the kidney can not easily be held *in situ*. A rubber bandage about the waist, or a large pad of adhesive plaster secured by a strap of the same material, or a specially constructed truss, is, however, sometimes successful. In the severer forms of this disorder, where these palliative means have failed, the question arises, Should this condition be relieved surgically? and, if so, then how can it be best treated?

Of late years a great deal has been said and written about the surgery of the kidney, and statistics of quite numerous operations have now been gathered. It has been shown that the mortality from nephrectomies is nearly fifty per cent. From a list of 100 cases recently presented by Dr. Harris, of Philadelphia, and from other sources, I find there have been eighteen nephrectomies, or extirpations of the kidney, performed for the relief of symptoms due to such displaced kidneys as this. Of these, two extirpations were made by the lumbar incision, and both patients recovered; sixteen were extracted by the abdominal incision, and seven recovered, while nine died. So the results of this operation are not very encouraging. Besides the danger from the operation directly, there is that incurred by the fact that in the majority of cases you are taking away a healthy kidney, which is only doing damage by its abnormal pressure, and hence an additional amount of work is suddenly thrown

* "Die Wanderniere der Frauen," 1881.

upon the remaining kidney. Again, you may, in your nephrectomy, be removing the only source for the elimination of urine. For in one case of operation of nephrectomy recently performed in this city, at the autopsy it was found that the patient had had only one kidney, and in another case, where a diseased kidney was removed, the remaining one existed only as a small cyst, the relics of a previous disease. This operation of nephrectomy is performed not only for displaced kidneys, but more frequently and justly for diseases of the kidneys, such as pyelo-hydronephritis, renal calculi, neoplasms, etc.

But only very recently in Berlin the question of the surgical treatment of a movable kidney has taken a different aspect. It is, according to Hahn, whether you can not relieve the patient by a safer operation than nephrectomy, namely, by cutting down in the loin upon the kidney, thereby avoiding the opening of the peritonæum, and, after reaching the capsule of the kidney, attaching its fatty and fibrous layers by sutures to the edges of the incision, and thus to hold or anchor the kidney in a new position, a little lower, perhaps, than normal, which will relieve the previous trouble; and this, too, by a comparatively harmless operation. This region is also selected for the incision because it is the safest one for the removal of the kidney, should it, in the course of the exploration, be found to be advisable. But, *en passant*, let me add that the lumbar incision for nephrectomy has one serious disadvantage, which is that you can not by it determine the existence of the other kidney. This can readily be done by the abdominal incision. What we yet need is a method to separate the secretion of one kidney from its fellow, and thus determine its condition. And in this connection I take pleasure in calling your attention to Dr. Sands's device of putting the hand into the rectum and pressing with two or three fingers over the region of one ureter, after emptying and washing out the bladder, and then collecting and examining the urine, presumably from the other kidney. There is yet another simpler plan which may be tried. You remember in the operation for amputation at the hip joint last week I used Davy's rod for pressing upon the common iliac artery to control the hæmorrhage. A similar instrument, with a larger flattened bulb at its extremity, might be employed for compressing the ureters. Both methods are, however, somewhat blind, as one can not be certain of recognizing the ureter, even by the fingers.

Another objection which has been offered to the major operation is, even if you remove one of the kidneys and the other is left still sound, are you not, as a consequence of the operation, exposing the patient to additional risks to which she should not otherwise be exposed? For when only one kidney is left to do all the work, there is danger of its suffering damage thereby. Thus, out of fourteen cases of solitary kidney which have been examined by Rayer and Mosler, calculi were found in the kidney in nine instances, and in seven of these death was caused by reason of these calculi. From interference with the circulation there is sometimes an increase in the amount of phosphates excreted, and these are liable to form stones, which may in cases of single kidney ultimately kill the patient.

In the "Centralblatt für Chirurgie" of July 23, 1881, and July 22, 1882, there are reported five cases of fixation, or anchoring, of the kidney, three of which were performed by Hahn and one each by Esmarch and Küster. In one of these cases there was a displacement of both kidneys, and two operations were resorted to, one four months subsequent to the other, and five months after the second one the patient was exhibited to the German Congress, cured. In the second case, great relief followed the operation, and in the third case the patient passed from under observation. In the two later cases of Esmarch and Küster the relief was great, but not complete. Though this operation has not been fully tested, yet I feel encouraged to attempt it, with good hopes of success, in the present case, rather than recommend or attempt a nephrectomy.

I propose to cut along the border of the quadratus lumborum muscle, not going too close to the twelfth rib, to avoid the pleura, as Holl directs, and divide all the tissues down to the mass of fat which should surround the kidney, and then stitch this to the edges of the wound, and so secure the kidney in a permanent position if possible. I will then leave the wound open and let it fill up with granulations, and finally cicatricial tissue will form in sufficient quantities to close the opening and support the kidney.

In this operation I shall use strictly antiseptic precautions throughout. For the spray, however, I will use the bichloride of mercury solution instead of carbolic acid, of the strength, say, of four grains of the bichloride to the pint. Under this spray the operation is comparatively safe, and although by mistake the peritonæum is opened slightly every now and then, yet I do not think this is of much importance if proper care is taken to keep the air about it pure, for in these accidents the gravity of the operation is, I think, not very much increased. Before proceeding to the operation, let me demonstrate the case to you.

As the patient's abdomen is exposed, you can see the manœuvre employed to cause the displacement to appear. I crowd the ribs inward, and the kidney is forced downward and toward the median line, and you can see its outline as it is grasped between the fingers. Its shape is distinct, of the size of a normal kidney, and it is felt lying with its long diameter across the right side of the abdomen, at about the level of the umbilicus, with its hilum looking upward; slight upward pressure causes it to slip into place.

Operation.—[The patient was turned over on her chest, with her face down, so that the right side of her back was most exposed, and over this the spray was kept playing. The back was then sponged off with a bichloride solution, and, after marking off a point three inches from the spinal column, Dr. Weir made an incision with a scalpel, passing vertically through this point and along the outer border of the quadratus lumborum muscle and extending from just below the lower border of the twelfth rib downward to the crest of the ilium. The first cut passed through the integument and subcutaneous areolar tissue and fat, and then by lighter incisions the sheath of the muscle was speedily exposed, and it and the superstructures were divided on a director until the region of the kidney was reached. A few bleeding vessels were meanwhile secured by forcipressure for-

ceps or torsion, and the parts kept clean by frequent sponging. The hæmorrhage was insignificant in amount. After all the intervening structures had been divided, the edges of the wound were held apart by retractors, and, while the operator introduced his fingers to explore the cavity, the kidney was pushed into place by the hand of an assistant pressing upward through the anterior abdominal wall. By this manipulation the lower border of the kidney was first grasped, and then it was turned so as to expose the long diameter of the organ through the long diameter of the wound, and thus it was made visible to all in the room. Its mobility up and down amounted to nearly four inches. A portion of the capsule was next seized with the dressing-forceps, and held fast while a needle armed with a piece of carbolized catgut suture was passed through it and the areolar or fatty tissue investing the kidney, and then through the integument and deeper tissues near the edge of the wound, and the two parts were drawn tightly together and held in coaptation. Another similar suture was placed at about a distance of three fourths of an inch from the first, and so the fat capsule was united, by six or eight sutures, to the edges of the wound on all sides. But before all the sutures were passed, a drainage tube was inserted deeply into the lowest portion of the wound and secured there, and the redundant tissue investing the capsule was trimmed off by scissors, so that the body of the kidney might be held low down toward the crest of the ilium and snugly against the mouth of the wound. After all the sutures had been secured and the parts cleansed, a complete impermeable dressing of bichloride gauze, Macintosh, and bandages, was applied without closing the wound, which was intended should be closed by granulation tissue, and it was hoped that a sufficient amount of inflammation would ensue to throw out plastic material in such quantity as to ultimately hold the kidney securely in its new position. The operation and the dressing were completed in thirty minutes after the first incision was made.]

NOTE.—The patient did well. The wound closed in five weeks, and at this date, January 26, 1883, she is much improved in condition. The kidney is fixed in its new position, and she only has some hyperæsthesia along the course of the ilio-hypogastric nerve, due to damage done at the operation.

Original Communications.

CASE OF EXTIRPATION OF A DISPLACED KIDNEY.*

By WILLIAM M. POLK, M. D.,

PROFESSOR OF OBSTETRICS AND GYNÆCOLOGY IN THE MEDICAL DEPARTMENT OF THE UNIVERSITY OF THE CITY OF NEW YORK.

OWING to an unavoidable delay in the report upon the autopsy in this case, I have been prevented presenting it till to-night. The details of the case I now beg leave to lay before you.

In June last, a young woman was sent to the clinic of

the medical department of the university for examination and treatment. She was nineteen years old, unmarried, and, with the exception of the condition then present, had always been well. At seventeen years of age she began to menstruate. The flow was scanty, but more or less persistent for a week, coming away apparently when she urinated. During its continuance she suffered from pain in the left iliac region, and some back-ache. These phenomena, together with the flow, recurred a second time in about five weeks. After that she was free from disturbance for some months. Again the iliac pain and back-ache returned, and continued to return at intervals, varying from three to five weeks, till she came under our observation. Occasionally a flow of blood from the genitals would accompany these pains. Whether this flow was from the genital tract, the bladder, or the rectum, the patient was unable to state, but she thought it came away with the urine. A careful examination showed a fair state of general health, a complexion that would have been ruddy but for a slightly bluish hue about the lips. The heart, lungs, liver, and spleen were normal. The pulse in both wrists was better marked in the ulnar than in the radial arteries. The urine was normal in quality and quantity. The external genital organs were seen to be imperfectly developed, and the vaginal orifice was absent. In order that the pelvic organs might be thoroughly investigated, the patient was etherized. It was then found that the pelvis contained *nothing* but a bladder and rectum. In the left iliac region, deep in the fossa, was a tumor, freely movable in all directions. It could be pushed as low as Poupart's ligament, as far outward as the anterior superior spine of the ilium, far enough inward to bring its inner border to the center of the pelvic inlet, and far enough upward to bring its upper border a finger's breadth above the posterior border of the crest of the ilium. It was of oval form, its greatest length being from above downward and inward, its lower extremity apparently smaller than the upper. Running from this lower extremity downward into the pelvis, apparently toward the posterior surface of the bladder, was a thin cord-like strip of tissue.* The tumor, which had been discovered before etherization, coincided with the region of pain of which the patient first spoke. The right iliac fossa was found to be normal. From this it was evident that there was no vagina, and certainly neither uterus nor ovaries in the true pelvis.

The patient had come for consultation in reference to the deformity, and with a view to finding relief for the pain and distress referable to the left iliac fossa. Thinking it best to keep her under observation for a while, she was allowed to remain in the hospital (Bellevue) for the summer. On August 7th she complained of the iliac pain, and passed a small amount of blood with the urine that day. The tumor in the iliac fossa was enlarged and very tender, the back-ache was intense, and a condition of general distress prevailed. These symptoms lasted three or four days, then subsided. These phenomena were repeated in September, and again in October. As long as the patient remained in bed she was comparatively comfortable, but whenever up and walking

* Read before the New York Obstetrical Society, February 6, 1883.

* See the report on the left round ligament, in the account of the autopsy.

about, the iliac pain was so severe as to make it necessary to keep her mildly under the influence of morphine.

The patient being urgent that some operative measure should be attempted for her relief, and thinking that the line of thickened tissue leading from the pelvic brim on the left side down into the pelvis might possibly be a rudimentary vagina, a slight incision was made into the tissue just below the meatus urinarius. This was deepened by means of the finger for about an inch. Nothing being found, the wound was dressed, and in a few days had closed. It was now explained to the patient that the creation of a genital tract was impossible. The question remaining was the possibility of relief from the iliac pain and the general incapacity which it occasioned, for it should be stated that, though this distress was most marked during the menstrual efforts, it was at all times sufficiently present to prevent her following any occupation capable of furnishing a means of livelihood.

This brought us face to face with the question as to the precise nature of the tumor. Of course, this question was considered in the first instance, when the exploration at the site of the vaginal orifice was made, but, as it has a more direct relation to the measure adopted for the relief of the pain, I think it will be less confusing to present the matter here.

Three opinions were entertained—one, that it was a displaced kidney; a second, that it was an ovary; a third, that it was a uterus. Carefully weighing all the reasons for and against, it seemed plain that we had to deal with a displaced kidney, but one that was intimately associated with menstruation—so intimately as to make it probable that there was a close relation between the organ and the ovary. The fact that all the menstrual symptoms pointed to the left iliac region and none to the right, that no enlargement or tenderness during menstruation could be detected in the right iliac region, suggested the idea that all the organs appertaining to that function present in the case were in the left side. The line of thickened tissue that seemed to extend from the inner edge of the tumor down into the pelvis between the rectum and bladder, together with the extreme nature of the symptoms, gave weight to this view. This point being decided, the next question was as to the measure of relief proper in the case.

It was evident that it was not a dislocated kidney, but one congenitally displaced, for it could not be pushed from the iliac fossa. No apparatus nor operation looking to fixing the kidney in the lumbar region could therefore be entertained. In fact, the element of mobility held but a subordinate position in the matter of distress.

The question was thus narrowed to removal on the one hand, or bearing with the suffering on the other.

In view of the dangers of removal, the patient, at our suggestion, concluded to endure her distress as best she could, and left the hospital.

In a few days she returned, and said she had tried to work, but could not, and that, after consulting with her friends, she had concluded to submit to the operation. In looking over the subject, I found the most urgent matter to be determined was the condition of the kidneys.

Several cases had been reported in which, death occurring after extirpation, it was found that the remaining kidney was so far diseased as to be useless. There seemed no chance of this mishap here, as there was not, nor had there been at any time, evidence of kidney disease. During the menstrual disturbance there had been traces of albumin in the urine, but never casts nor renal epithelium, and in the intervals the urine was characteristically healthy. The final question was as to the absence of a kidney.

In view of the genital malformation, there was a possibility of but one kidney being present, but how to determine this was by no means easy.

The patient was placed in the knee-chest position, and careful percussion of the renal regions was made, the result being that there was dullness on the right side, and deep tympanitic resonance on the left; the bimanual palpation of the lumbo-abdominal regions, owing to the tension and thickness of the abdominal walls, was negative. The method of Simon was now open to me (catheterization of the ureters), but the fact that, in common with many others here, I had tried this method several times, and had never succeeded (save when a large vesico-vaginal fistula existed), made me feel the attempt would be futile.

The method of examining the renal region by means of the hand in the rectum was discarded, for the reason that the pelvis was too small to permit of it without serious risk to the patient; it had been attempted while trying to determine the position of the uterus and ovaries.

The remaining method was the examination of the kidneys *in situ* after opening the abdominal cavity.

In planning the operation, my intention was to open the abdominal cavity in the median line as in ovariectomy, but, just before the day appointed, I saw a case of extirpation of the kidney in consultation, in which, after the operation, owing apparently to the action of the ligatures, dangerous obstruction of the bowels had supervened. This caused me to reconsider my operation. Referring now to the position of the tumor in my case, it will be remembered that it was situated in the iliac fossa, and that it could be easily pushed down as low as Poupart's ligament; it was evidently closely attached to the fossa, as was shown by the fact that with the patient in the knee-chest position it did not fall forward toward the abdominal wall; it was probably behind the peritonæum under the sigmoid flexure. Evidently it could be removed by an incision just above Poupart's ligament. If its position was as I supposed, I should not have to open the peritoneal cavity. I could secure free drainage from the end of the ureter and the vessels, along a short tract downward, with no possibility of coming in conflict with an important organ. These considerations prevailed, and I made my decision in favor of the incision just above Poupart's ligament. There were dangers either way, but I felt I had selected that along which the fewest lay. To save my patient from those that are common, that fill every operator's mind, when he goes through the peritoneal cavity and attempts to drain a possibly suppurating sac through it, I chose to assume the presence of two kidneys—to take the more remote risk of the patient having but the one kidney.

The patient being etherized, an incision was made paral-

lel to Poupart's ligament, about an inch from it; its upper limit was on a level with the anterior superior spinous process of the ilium, its lower just outside the internal inguinal ring. The sub-peritoneal space in the iliac fossa was speedily reached. Pressure from above brought the kidney into the opening; an incision was made into a dense layer of connective tissue surrounding it, and at once the organ came into view. It was easily enucleated, and removed. Two ligatures were used, one for the ureter and one for the artery and vein. No blood was lost. It was evident that I had not entered the peritoneal cavity; but, before I could close the wound, the patient showed signs of heart-failure. This, however, passed off under stimulation. The wound was closed to within half an inch of the lower angle, through which the ligature of the pedicle was brought out, and a piece of doubled drainage tube introduced. The principles of Listerism were carried out during the entire operation. It lasted twenty-five minutes. The further history of the case I now append, it having been prepared by Dr. Fruit-night, the House Physician.

In the subsequent history of the case the day is reckoned from midnight to midnight.

The temperatures were taken by the mouth hourly until November 7th; after that date every three hours.

In two hours after the operation, the patient had entirely rallied from the shock. As soon as she had been removed to her bed, she received 3 ss. of whisky hypodermically.

November 3d, 2 P. M.—In order to relieve her of considerable pain in the lower part of the back, she was given 10℥ of Magendie, by the mouth.

3 P. M.—There being no subsidence in the pain, she received 10℥ more, and in half an hour another 10℥.

4 P. M.—The dressing, having become displaced, was changed. The catheter drew off $\frac{3}{4}$ ij of urine, specific gravity 1.018; acid, $\frac{1}{2}$ albumin by volume.

6.30 P. M.—Vomited a little; her pulse is so small as to be scarcely perceptible; she is resting quietly, and complains now less of her back and more of her side. There is a slight oozing from the wound. She received Magendie 10℥, whisky 20℥, hypodermically.

7 P. M.—Vomited; pulse much stronger; catheter passed, no urine.

7.40 P. M.—Slightly chilly; vomited.

8 P. M.—Has been perspiring freely for the past two hours; received fluid extract of digitalis 5℥—not retained.

9.20 P. M.—Has had some sleep; still suffers from pain in the back and side; administered Magendie 8℥, hypodermically.

10 P. M.—Dressing changed; wound quite dry.

10.30 P. M.—Vomited.

12 midnight.—Slept quietly for an hour. Thus far the extremes of her temperature have been $98\frac{1}{4}^{\circ}$, at 2 P. M., and $99\frac{1}{2}^{\circ}$, at 9 P. M. Pulse ranged between 70 and 96; respiration between 36 and 12 (after Magendie). Taken and retained $\frac{3}{4}$ iv of milk.

November 4th.—To-day the patient vomited as many as eighteen times; the act was accomplished with considerable effort; it occurred more frequently, irrespective of nourish-

ment taken; the catheter was passed seven times, but no urine was drawn off.

The highest temperature point reached during the day was the highest in the course of the case, $101\frac{1}{2}^{\circ}$ at 7 P. M.; the lowest was 98° , at 10 A. M.

The pulse was unaltered in character, and also reached its maximum in the history, 132, at 5 P. M., the lowest register being at 1 P. M., viz., 80.

The respirations ranged between 13 and 26, irregular for a short time in the afternoon.

She slept quietly for about three hours. The pupils were evenly contracted, and remained so until the ante-mortem convulsion.

In the early morning complained of a pain in her side and back; relieved after hypodermic of Magendie, 10 ℥.

During the day she suffered from a hot, dry sensation in her mouth; relieved considerably by cracked ice and carbonic water *ad libitum*.

Tongue is quite clean.

1 P. M.—Digitalis poultices applied over kidneys; renewed hourly until the next day.

3.30 P. M.—The pulse is quite weak, and she appears to be faint. Whisky, 15 ℥ hypodermically.

4 P. M.—Enema given; ineffectual.

4.45 P. M.—Pilocarpine hydrochlorate, $\frac{1}{8}$ grain, given hypodermically. In half an hour she broke out into profuse perspiration, that continued for perhaps one hour; during this time she was freely salivated; her pulse was unaltered in character.

7.50 P. M.—Dressing changed; wound doing well.

Pilocarpine, $\frac{1}{8}$ grain. Whisky, 20 ℥ hypodermically; began to perspire in fifteen minutes, and continued slightly for an hour.

9.15 P. M.—Had a large, brown, watery movement. She received fluid extract of convallaria, 5 ℥.

11.15 P. M.—Pilocarpine, $\frac{1}{8}$ grain. Slight perspiration for half an hour.

11.45 P. M.—Fluid extract of convallaria, 5 ℥.

Before the use of the pilocarpine, the skin had been perfectly dry; afterward it was always more or less moist. During the day she took thirty-four ounces of milk; most of it retained.

November 5th.—Patient vomited seven times during the day. Catheter was passed 3ia qu. h., but no urine was obtained. Highest temperature, 101.2° , at 1 A. M. Lowest, 97.75° , at 9 A. M.

Pulse regular, 120° highest, several times during the twenty-four hours, and 88° at the lowest.

Respiration normal, ranging between 19 and 13.

The patient is not much changed in appearance; her face is still florid, with a slight bluish tinge under the eye. She expressed herself as feeling quite comfortable.

Once during the morning she complained of intense thirst; she slept about four hours at intervals; she had two small watery movements. Patient took and retained $\frac{3}{4}$ 15 of milk.

The wound is healing kindly; there is no tenderness, tumefaction, or redness.

At 10 A. M. she became very much cyanosed, was almost

pulseless, and her breathing was quite shallow; administered whisky, $3\frac{1}{2}$, and tincture of digitalis, 5 μ , hypodermically.

At 3 P. M. was given pilocarpine, $\frac{1}{4}$ grain, hypodermically. Whisky, $3\frac{1}{2}$, per rectum, and placed in hot-air bath for half an hour. Profuse perspiration and expectoration set in, and lasted for about one hour. While in the bath, her pulse grew weak, there were twitchings of the fingers of both hands, and she complained of not being able to see plainly; gave whisky, $3\frac{1}{2}$, hypodermically.

Fluid extract of convallaria, 5 μ , was given twice during the day, and two more hypodermics of pilocarpine, one of $\frac{1}{8}$ grain, and the other $\frac{1}{4}$ grain, were given, whisky, $3\frac{1}{2}$, being administered each time; each dose of pilocarpine was followed by profuse perspiration.

November 6th.—Vomited six times to-day. Catheter failed to obtain any urine. The temperature varied between 99.5° and 97.75° . (*Note.*—The temperature hereafter will not be noted, as it did not rise above normal.) Pulse varied between 88 and 120, which it registered once in the twenty-four hours; it retains its regular, small, and compressible character. The respirations ranged from 24 to 8 a minute, the latter being the lowest in the history of the case; at this time it was somewhat irregular in rhythm. She had considerable sleep in the twenty-four hours.

She lies quietly, talks intelligently, and suffers no pain. She received an enema, which was ineffectual. In the morning she was given a hypodermic of $\frac{1}{4}$ gr. pilocarpine, that was followed by profuse sweating for about three hours. In the afternoon, free perspiration set in, and continued for the rest of the day. She took $3\frac{1}{2}$ of milk, mostly retained, and $3\frac{3}{4}$ of whisky, in divided doses.

November 7th.—Vomited twelve times in the course of the day. Catheter was passed a number of times, but failed to draw off any urine. The pulse varied between 108 and 80, and was unaltered in character. The respiration ranged between 24 and 9 a minute. Perspiration was free, and the skin remained moist until 11 A. M., when it became very dry; a hot air-bath restored its action, and its activity continued the rest of the day. Several times slight jerking movements of the fingers and arms were noticed. A marked anæsthesia of the right lower extremity was noticed, that she had had for the last twenty-four hours; it has disappeared. She slept a good deal during the early part of the day.

Nourishment taken amounted to $3\frac{1}{2}$ of milk. She was given 36 of whisky, in divided doses.

In the afternoon she was given two elaterium pills, $\frac{1}{8}$ gr., at an interval of three hours; the last one was not retained.

6.30 P. M.—Has had no movement in fifty-one hours. A large enema, containing $3\frac{1}{2}$ of ox gall, was administered, and was followed by a full semi-fluid movement. Immediately afterward, she vomited with great effort; her face grew cyanosed, and there were decided convulsive movements of the upper and lower limbs for a few moments. She gradually became quiet, and apparently comfortable.

November 8th.—The pulse ranged between 108 and 80; it was regular, but generally quite thready.

Respiration ranged between 18 and 12. Before day-break she was very restless, and spoke at times in a disconnected manner. She complained of a severe back-ache, and numbness of the right hand. During the day she vomited frequently, a mouthful at a time. Her tongue is moist, and covered with a thin, white fur. She was constantly hawking and making efforts to clear her throat. As the morning advanced she grew more quiet, and her pain gradually disappeared.

By noon-time she seemed brighter than at any time subsequent to the operation, although her face was much thinner and her eyes were deeply set.

During the afternoon she suffered from an intolerable vesical irritation, and constantly begged to have the catheter passed.

Toward evening she began to talk wildly, but would stop when spoken to.

She takes short naps, waking with a start and scream.

At 6 P. M. she had an attack of vertigo; the rest of the day was passed quietly, and she enjoyed several hours of quiet sleep.

During the night she received an ox-gall enema, which was followed by a large, semi-fluid movement.

The wound was dressed once, and found doing nicely.

During the twenty-four hours she took $3\frac{1}{2}$ of milk; most of it retained. In the way of treatment she received digitalin, $\frac{1}{16}$ grain, by mouth, at 4.30 P. M., 8 P. M., and at midnight. The event of the day was the withdrawal from the bladder of 32 of fluid—31 at 1 P. M., and $3\frac{1}{2}$ at 3, and 8 respectively; its color was cloudy amber; on standing, several broad, white flakes were precipitated, its reaction was alkaline, and it contained a few epithelial bladder-scales, and a few red and white corpuscles. Upon chemical analysis, it was found to contain a very appreciable amount of urea; boiling completely solidified it; it had a slight urinous odor, similar to the perspiration.

November 9th.—Pulse varied between 100 and 80; weaker, but regular.

Respiration ranged between 12 and 16.

The fluid withdrawn from the bladder amounted to 39; its character was the same as the preceding. She vomited but four times; skin was moist all day, and at times she was perspiring freely; she had several quiet sleeps.

Twice during the day she complained of dimness of vision. At one time she was slightly delirious; now and then she is affected by sudden starts and twitchings of her hands; she has not lost much strength, tossing about constantly; she had one large loose movement.

The derangement of the dressing of the wound necessitated its renewal twice; it continues to do well.

She took $3\frac{3}{4}$ of milk; nearly all retained.

Treatment: She received five doses of digitalin ($\frac{1}{16}$ grain) during the twenty-four hours; 3 comp. cathart. pills at 3 P. M.

November 10th.—The extremes of the pulse were 104 and 80; at intervals it was weak and irregular in both force and rhythm.

Respiration ranged between 12 and 24.

Fluid obtained from the bladder amounted to 36.

She is less restless to-day, and obtained more sleep. She vomited twice, each time a very small quantity.

She had three large watery movements.

The patient does not appear to be much exhausted; her voice is strong, and she moves about without efforts; her features are, however, very much altered; the outlines of her face are more sharply drawn, her color is deeper, and her eyes are deeply sunken; she has occasional jerking movements and obscurity of vision.

The wound was dressed and the sutures were removed; union was found perfect; there is a slight healthy discharge from the lower part.

She received $\frac{3}{4}$ 31 of milk, all of it retained.

Treatment: Digitalin, $\frac{1}{10}$ of a grain, at 3 and 7.30 A. M. Cupped twice over the kidney. Infusion of digitalis, 1 3, 9.1h., from 7 to 11 P. M.; all retained.

November 11th.—The pulse ranged between 96 and 80, strong and regular the early part of the day, weaker later on; respiration varied between 18 and 12; the amount of fluid obtained from the bladder amounted to 3 3; she perspires a good deal, the skin being always moist and warm.

She feels weak, and complains of pricking sensations over the entire body. The twitching and dimness of vision continue; she had a short attack of hiccoughing; much of her time is passed in sleeping; the wound was dressed twice, and continues to do nicely.

She received $\frac{3}{4}$ 15 of milk, none of which was rejected.

Treatment: From 1 A. M. to 9 A. M. she took 3 1 of infusion digitalis hourly; at 7 A. M. she was so nauseated that her medicine was omitted.

November 12th.—Pulse varied from 76 to 96; it was weak, but regular. Respiration varied from 12 to 17. A few drops only of fluid were drawn from the bladder. She vomited three times. She lies in a semi-somnolent state most of the time, but is easily aroused.

She is almost constantly in a profuse perspiration. She had frequent attacks of hiccough during the day. The twitchings continue; dimness of vision not so much complained of; she has no pain anywhere. In the morning, a rose-colored eruption was observed on the arms and neck, slightly elevated, disappeared on pressure, and became more profuse and noticeable during the course of the day. She complains of the milk nauseating her; however, she took $\frac{3}{4}$ 30 of it during the twenty-four hours, mostly retained.

At 4 P. M. she was covered with a cool perspiration, her face grew dark and purplish, and she complained of oppressive heat. Cyanosis grew more and more marked, breathing became difficult, and finally she went into a stupor that lasted until 5.30, when she gradually recovered and went to sleep.

At 9 P. M., complained of an annoying general pruritus. During the day she had six large, watery, offensive movements. Wound dressed twice; doing well. No medicines were exhibited.

November 13th.—Pulse varied between 96 and 80; is regular, but very weak. Respiration ranged between 12 and 15. Fluid drawn from the bladder during the day amounted to 3 iv. Patient has grown very much exhausted.

She lies quietly on her back all the time, and the eyes have closed. She wakes suddenly from her sleep, because of the violent convulsive movements of her arms.

These movements are present most of the time, but are more marked during sleep. She complained of intense itching several times, and had frequent attacks of hiccough; her mind is perfectly lucid. The eruption is quite profuse on the extremities and on the neck.

She refused her nourishment. $\frac{3}{4}$ ix were taken, and but little of it was rejected. She vomited four times, twice a greenish, glairy fluid, with considerable effort. Wound dressed twice; discharge slight. Treatment, none.

November 14th.—The pulse did not go above 84, and was regular. Respiration ranged from 16 to 12. Nothing was obtained from the bladder. Slept none at all to-day.

3 A. M.—Slightly delirious. Is unconscious of her surroundings. Imagines she is on fire.

8.15 A. M.—Her dressing changed; discharge slight in amount, offensive.

11 A. M.—Is resting easier, and appears more comfortable.

12 M.—Pulse 59. Small and irregular in volume and rhythm. Well-marked dyspnoea; eyes staring.

12.15 P. M.—Was having a general clonic convulsion, with the head rigidly turned to the right; fixed expression; staring eyes.

Subsequently, the body and extremities became rigid, and there were convulsive movements of the facial muscles, labored respiration, and widely dilated pupils. These active symptoms were prolonged about three minutes, and were followed by coma that lasted as much longer.

The respiratory movements gradually stopped, her heart ceasing to beat a short time before.

The duration of life after the operation was just eleven days and one hour.

The pathological report, by Dr. William H. Welch, is as follows:

Post-mortem Examination of a Young Woman without Uterus or Vagina, and with only One Kidney, which had been extirpated.—The brain and spinal cord were not examined.

Exterior.—The body is well nourished. The development is typically feminine. There is considerable adipose tissue. There is no trace of œdema about the ankles or elsewhere. In the left iliac region, a little to the right of the anterior superior spinous process of the ilium, is an oblique linear incision 9 ctm. in length. A drainage tube occupies the lower angle of this wound. Above this the edges of the wound are united by sutures and are firmly agglutinated. There is no unhealthy appearance about the wound. This incision leads into a cavity situated just outside of the peritonæum, from which cavity the kidney was removed during life.

Mammary Glands.—The mammae are large, and contain much adipose tissue. Upon cutting through the glands, milk oozes out in large quantity.

Peritonæum.—The peritonæum in its inner surface is smooth and glistening, and is free from old adhesions as well as from any evidences of acute inflammation. Even the peritonæum immediately adjacent to the cavity from which the kidney was removed presents a healthy appearance.

Heart.—The pericardial sac contains about 100 cubic ctm. of clear serum. The heart is normal in size and appearance. Its

weight is 255 grammes. The left ventricle is firmly contracted and empty. The right ventricle contains a post mortem white clot. The valves are delicate and entirely normal.

Aorta.—The caliber of the aorta is abnormally small. The diameter of the aorta ascendens is 18 mm.; that of the abdominal aorta just before the origin of the renal arteries is 9 mm. The wall of the aorta appears thin. The inner surface is free from atheroma or fatty degeneration.

Lungs.—Upon both sides there are old, firm pleuritic adhesions, most abundant upon the right side. There is no increased amount of fluid in the pleural cavities, and there are no signs of acute inflammation. With the exception of the old adhesions, the lungs are in all respects normal. Their parenchyma is reddish in color, elastic, dry, and crepitant. There is no œdema or congestion of the lungs. No mucus or pus can be squeezed from the bronchi.

Spleen.—The capsule of the spleen is somewhat thickened, and it is surrounded by old, firm adhesions which unite the organ to the diaphragm and the surrounding parts. The organ is enlarged, measuring 18 cm. in length. Its consistence is firm, its color reddish-brown, without trace of malarial pigmentation. The trabeculae show distinctly.

Liver.—The shape is that of a liver moderately deformed by tight lacing. The gall bladder protrudes; the left lobe is flattened, and is increased in lateral diameter. The consistence, the color, and the lobular markings of the liver appear normal.

Œsophagus.—Normal.

Stomach.—The inner surface of the mucous membrane is reddened, and is coated with gray, thick, glairy mucus. The redness is due to hyperæmia, without noticeable ecchymoses. The changes are most marked in the pyloric region. The lesions are those of an acute catarrhal gastritis. There is no post-mortem softening or discoloration of the mucous membrane.

Intestine.—The mucous membrane, particularly that of the small intestine, is likewise reddened and coated with mucus in some places. In the large intestine are yellow faeces of soft consistence.

Pancreas.—Firm, and normal in appearance.

Supra-renal Capsules.—Both capsules are present, the right in its normal position, the left somewhat higher than normal. Their structure appears normal.

Kidneys.—Both kidneys are absent. There is no trace whatever either of the right kidney or of the right ureter. The left kidney was removed during life. It did not occupy its normal position, but lay in a space in front of the iliacus muscle behind and to the side of the peritonæum. This space which contained the kidney extends from a little above the crest of the ilium to the brim of the true pelvis. The sides of this space are composed of fibrous tissue, and present, over a considerable extent, granulation tissue. The external incision mentioned above leads into this cavity. Ligatures securing the left ureter and the renal arteries are attached to the inner wall of this cavity and project externally from the wound. There are two left renal arteries, measuring 6 cm. in length, given off from the aorta a short distance above its bifurcation. No renal artery is given off on the right side.

Ureter.—As already mentioned, the entire right ureter is absent. The left ureter pursues a nearly normal course from the point of ligation mentioned above to the bladder. The length of this portion of the ureter is 13 cm. The diameter of the ureter is 9 mm., being about twice the normal size. This increased caliber of the ureter is not due to any obstruction in the urinary passages. There is no trace of a second ureter belonging to the left kidney.

Bladder.—The bladder is contracted, and lies in its normal position behind the symphysis pubis. It measures, from vertex

to fundus, 7 cm. It contains a few drops of an opaque seropurulent fluid, but no urine. The mucous membrane is reddened from hyperæmia and from ecchymosis. It presents many distinct folds. The submucous tissue is œdematous. The lesions are those of an acute catarrhal cystitis. The opening of the left ureter is large and patent. The usual distinct fold (plica ureterica) extends from this opening along the left side of the trigonum vesicæ toward the urethral orifice. On the right side there is no corresponding fold, or plica, and no trace of the orifice of a ureter. Thus, in this case, the trigonum does not exist.

Urethra.—The urethra is 30 mm. in length, and normal in appearance. The external orifice is wide, and presents on each side a projecting fold of mucous membrane.

Vulva.—The labia majora have about the usual appearance and development. The labia minora, on the other hand, are very rudimentary, and are represented only by slightly projecting folds of mucous membrane. The clitoris is apparently absent, but above the urethral orifice is a recess surrounded by little folds resembling the præputium clitoridis.

At the situation for the vaginal orifice is an irregular opening, 3 cm. in length, which leads into a blind recess, or cul-de-sac, 2 cm. in depth. This orifice and recess were made by a surgical operation during life.

The perinæum measures 3 cm. in length.

Vagina and uterus are both absent. The peritonæum passes from the posterior wall of the bladder to the anterior wall of the rectum in the same manner as in the male. The floor of the recto-vesical fossa is smooth, and without any thickening.

Ovaries.—Two large and healthy ovaries are present in abnormal situation. The ovary upon each side lies upon the peritonæum covering the iliacus muscle external to the psoas magnus. *The left ovary lay directly over the left kidney before this was removed, and was separated from it only by the peritonæum and subperitoneal connective tissue.* The right ovary measures 6½ cm. in length, 18 mm. in breadth, and 9 mm. in thickness. The left ovary measures 6½ cm. in length, 20 mm. in breadth, and 13 mm. in thickness. Although the ovaries are somewhat larger than normal, they appear normal in structure. Their surface presents many cicatrices of ruptured Graafian follicles, and here and there can be seen little vesicles, which are ripe, or nearly ripe, Graafian follicles. Each ovary is closely attached along its whole length to the peritonæum. The usual white line (of Waldeyer) at the peritoneal attachment of the ovary can be seen.

Fallopian Tubes and Parovaria.—Upon each side are rudiments of the Fallopian tubes. Upon the right side the portion of the tube which is present measures 3½ cm. in length. It presents a normal fimbriated extremity. The other extremity is rounded and closed. A probe can be passed into the tube up to this extremity. The diameter does not vary materially from that of the abdominal portion of the tube normally. This rudimentary tube lies near the ovary, to the base of which it is attached by a meso-salpinx, 3½ cm. long and 3 cm. wide. This meso-salpinx is a thin and delicate membrane, in which can be seen distinctly the parovarium, measuring 20 mm. in diameter, and presenting its usual appearance. A single cyst, of about the size of a pea, with clear contents, lies in the folds of the meso-salpinx, immediately beneath the fimbriated extremity of the tube. Upon the left side only the fimbriae of the tube are present. A nodule of adipose tissue, about 8 mm. in diameter, lies between these fimbriae and the ovary, so as to obscure any evidence of a meso-salpinx or a parovarium if these structures existed.

Ovarian Ligaments and Round Ligaments.—The round ligament is represented upon each side by a firm, impervious cord, 13 mm. in greatest diameter, which can be traced from the ingui-

nal canal into the pelvic cavity, where it is lost in the subperitoneal tissue. *The left round ligament is lost in this tissue, corresponding to the posterior part of the lower portion of the bladder. The right round ligament can not be followed so far down into the pelvic cavity.* The left round ligament measures 15 ctm., and the right one 10 ctm. in length. Each round ligament is joined by the corresponding ovarian ligament, which passes from the anterior extremity of the ovary forward and somewhat downward. The ovarian ligaments appear as firm, fibrous cords. The right ovarian ligament joins the corresponding round ligament in the inguinal canal. The left ovarian ligament unites with the left round ligament a short distance above the brim of the true pelvic cavity. The right ligament measures 6 ctm., the left 5 ctm. in length.

The microscopical examination of the round ligament shows that it is composed of fibrous tissue and smooth muscular tissue, with blood-vessels.

Examination of the Kidney removed during Life.—With the exception of increase in size, the kidney appears normal. The length of the kidney is 13 centimetres, the width 7 centimetres, and the weight 198 grammes. The capsule is stripped off readily, leaving a smooth surface. Upon section, the cortex is of reddish-gray color. Its striæ are distinct, and of normal appearance. The thickness of the cortex over the base of the pyramids is 16 mm. The pyramids likewise appear normal. Portions of the kidney were examined, both fresh and after hardening in alcohol, and showed no evidences of disease. There are no shrunken glomeruli, no thickened capsules, no increased intertubular tissue, no fatty degeneration of the epithelium.

A number of measurements were made of the diameters of the glomeruli and of the convoluted tubes (after hardening in alcohol).

The maximum diameter of the glomeruli is found to be 288 μ ; the minimum, 200 μ ; the average diameter, 235 μ .

The maximum diameter of the convoluted tubes is 98 μ ; the minimum diameter, 45 μ ; the average diameter, 64 μ .

Krause gives the diameter of the normal glomeruli as 200 μ to 220 μ , that of the convoluted tubes as 20 μ to 60 μ , average, 50 μ . Leichtenstern gives the maximum diameter of the normal glomeruli as 205 μ , the minimum diameter as 180 μ ; the maximum diameter of the convoluted tubes as 79 μ , the minimum 49 μ , average 62.7 μ .

In the present case the average diameters both of the glomeruli and of the tubes are somewhat greater than normal, so that these parts seem to be somewhat hypertrophied. This increase in the diameter of the glomeruli and of the tubes is, however, far less than that found by Leichtenstern in his case,* and is not so far beyond the normal limits as to justify any very positive conclusions in view of the wide variations in diameter to which the normal elements of the kidneys are subject. The measurements in this case favor the view that, with congenital deficiency of one kidney, the increased size of the single kidney is due mainly to hyperplasia. The moderate hypertrophy in the present case alone would not explain the increased size of the organ.

WILLIAM H. WELCH.

In concluding this article, I will make bold to offer a suggestion as to a method of procedure that may be used as a means of establishing the presence of two kidneys; it may also be utilized to determine the condition of the kidney that is to remain, in a case in which it is advisable to remove one because of its diseased state.

* Leichtenstern, "Ueber Nierenhypertrophie," "Berlin. klin. Wochenschrift," 1881, Nos. 34 and 35.

Various methods have from time to time been suggested.

1. Catheterization of the ureters, a procedure very difficult to accomplish.

2. Exploration of the renal regions by means of a hand carried into the rectum, a measure difficult of accomplishment and not free from danger, giving you information, perhaps, as to the presence or absence of a kidney, but affording little or no evidence of its condition.

3. Cutting down upon the ureter of the kidney to be extirpated, as in the operation for tying the common iliac, passing around it a temporary ligature. Then washing out the bladder, collecting the urine from the kidney it is proposed to leave, and examining it—a certain but too serious a method.

4. The examination of the renal regions after opening the abdomen. This is a method that will determine the presence or absence of a kidney, but it will not afford sufficient proof of the integrity of the organ.

To overcome this difficulty, Glück has recommended the ligating or clamping of the ureter, the subcutaneous injection of a solution of iodide of potassium, then the examination of the urine a few minutes after for iodine. This method, although certain, exposes the patient to the dangers of abdominal section before the diagnosis can be made.

5. It has been suggested to compress the ureter of the kidney to be extirpated, at its crossing of the common iliac on the left side, or its crossing of the external iliac on the right side, by means of the hand in the rectum, or by a rounded wooden bulb. The bladder is first washed out, so as to get rid of all urine from the kidney to be extirpated. That which comes in must be from the kidney to be left. A chemical analysis being made of it, you have the best possible evidence of the state of the organ from which it has come.

6. The method I have to suggest is a modification of the latter. It is to compress the ureter at a point lower down. I confess it is easier of performance in the female than in the male, but I believe it can be accomplished in both. Take a large catheter, made of some substance like block tin, bend it to the shape of a Sims's sigmoid catheter; let the curve that passes into the bladder be as decided as it can be made, and yet not so great as to interfere with the ready passage of the instrument into the bladder. Suppose it to be the right ureter you desire to close. Introduce the instrument; then place the patient in the lithotomy position. Now carry two fingers as far into the rectum as possible.* Now place the catheter so that its curve in the bladder hugs the right pelvic wall; the end of the curve will pass directly across the line of the right ureter. Now press the fingers against the catheter, and the ureter will be sufficiently occluded to prevent all escape of urine. By means of the catheter in position (it may be double) you thoroughly cleanse and empty the bladder. As fresh urine flows in from the other ureter, it can be withdrawn and tested. As urine from a sound kidney is secreted at about the rate of a minim in four or five seconds, it will not require long-continued pressure to secure the amount of urine necessary

* An instrument curved and grooved to receive the catheter might be substituted for the fingers for counter-pressure.

for satisfactory examination. In the female the procedure is more certain of accomplishment than in the male, because we can, in a measure, fix the base of the bladder by traction upon the anterior vaginal wall by means of a tenaculum hooked into it just below the cervix, or, better, well to the right of the cervix, on the lateral wall, the traction being downward and to the patient's left.

The fact that a patient can live, and be in fair condition, eleven days without any kidney tissue, would seem to prove that, if we can demonstrate the presence of a sound kidney, the removal of its diseased fellow (the disease reacting unfavorably on health and life) is not only permissible, but imperative.

NEPHRECTOMY FOR CHRONIC PYELITIS WITH LARGE PHOSPHATIC RENAL CALCULUS.

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MRS. C., American, aged thirty-four, married, the mother of two children, the eldest aged thirteen and the youngest nine years. Family history good. Patient has always enjoyed fair health until about thirteen years ago, or since her first confinement. At that time she sustained a double laceration of the cervix uteri, which, in connection with subinvolution of the perinæum, has occasioned more or less procidentia, both of the uterus and of the bladder. During this time she has lost considerable flesh, has become thoroughly anæmic, has suffered much from frequent, severe, and protracted headache, from general debility, loss of appetite, constipation, inability to sleep, etc.

To these symptoms has been added, since the birth of her youngest child or for the past nine years, constant, dull pain in the right lumbar region, in the right loin, and frequently in the whole length of the spinal column.

About four years ago she first called my attention to the condition of her urine, which, on examination, gave the following results: Amount for twenty-four hours, variable (16 to 30 ounces); general appearance, pale, turbid; deposits, on standing, nearly one half of its bulk of a thick white sediment; odor, ammoniacal, fœtid; reaction, alkaline; specific gravity, 1.022.

Microscopical Examination.—Pus corpuscles in abundance; blood-cells in moderate quantity; mucus; *débris*; bladder and vaginal epithelium, moderate amount. Crystals, triple phosphates; stars and rods of phosphate of lime or stellar phosphates.

In this connection, I may add that, after making a large number of careful microscopical examinations of the secretion, I was unable to find a single cast, and in only one sample was there found any of the peculiar epithelium of the kidney or of its pelvis.

The urine was at all times albuminous, but it was thought not more so than could be accounted for by the presence of a certain amount of pus and blood.

The feet and ankles were occasionally swollen at night; but, as the œdema usually subsided during the hours of re-

cumbency, it was regarded as passive in its nature rather than of renal origin.

With the impression, therefore, that she had no serious renal disease, and believing that many of her symptoms, including the ammoniacal state of the urine, might justly be ascribed to the condition of the uterus and perinæum, and to their effects on the position of the bladder, I urged upon her the propriety of an operation for their relief, advice which had been given her two years before by Professor T. G. Thomas, who kindly saw her in consultation.

Accordingly, in February, 1882, I closed the laceration in the cervix with six carbolized catgut sutures, and the perinæum with silver wire. At the end of ten days union of both wounds was complete, and the local result eminently satisfactory.

In the mean time, or during the two weeks of confinement to the bed, there was a marked improvement in the general appearance of the urine, consisting in a largely diminished amount of pus, blood, etc., rather going to confirm the somewhat vague suspicion which I had always entertained, that the alkaline state of the urine was possibly due to imperfect evacuation of the bladder, followed by rapid ammoniacal decomposition of its contents, owing to the displacement of this organ, as indicated above.

In view of the subsequent history of the case, however, I am now of the opinion that the improvement in the urine at this time was due to the recumbent position of the body alone, and the consequent lessened irritation of the kidney, as will be more apparent in the sequel.

April 1, 1882.—The urine for some time past has assumed its former unhealthy characters, with the addition of a perceptibly gritty deposit of phosphate of lime, leading me to suspect the presence of a calculus either in the ureter or the kidney, repeated examinations of the bladder having failed to discover anything there. The patient suffers intolerably with pain in the back and loin of the right side, which is only partially or temporarily relieved by assuming the recumbent position.

A careful physical examination in the region of the kidney failed to discover anything but the ordinary area of dullness on percussion.

April 20th.—For the last three weeks the urine has contained larger quantities of pus, mingled with a considerable amount of blood, but with an entire absence of symptoms referable to the bladder. Patient was seen, in consultation, by Professor William H. Thomson, who agreed with me in the diagnosis of chronic pyelitis, probably depending upon the constantly alkaline state of the urine, with, possibly, the presence of a calculus either in the ureter or kidney.

Ordered small doses of camphorated tincture of opium in an infusion of buchu, together with such an amount of alcohol as she could bear, in the hope of rendering the secretion acid. This treatment, after a faithful trial, had no other effect than to enable the patient to sleep somewhat better than before.

May 16th.—In order to determine if possible the question of stone in the kidney, a fine aspirator needle was passed through the lumbar region into the organ in various directions, being careful to avoid its pelvis and the close prox-

imity to it of the abdominal aorta and the ascending vena cava.

The result of the operation was purely negative, except that, in examining the bloody serum withdrawn by the aspirator, I found a single cluster of triple phosphate crystals—showing that the phosphatic condition of the urine was present even here, and did not, therefore, take place altogether in the bladder as a result of decomposition.

Another careful physical examination failed to make out the kidney, except as indicated by percussion.

June 1st.—Condition of patient unchanged, except that she is gradually losing ground.

Her treatment consists of tonics, mineral acids, with wine or punch, and as much nourishment as she can take, and which, on account of the irritable state of the stomach, often amounts to very little.

July 15th.—Condition unchanged. Another examination made with reference to feeling the kidney and, if possible, determining its size and general condition; negative, as before. Patient went to the country, but was so wretched while there that she returned at the end of two weeks.

September 22d.—During my absence from the city since last report, patient had occasion to consult my friend Dr. E. L. Partridge, who, in examining the abdomen with reference to some uterine displacement, discovered a tumor in the right loin. The tumor was now easily recognized by the touch, occupied a position between the lower border of the ribs and the crest of the ilium, was as large as the fist, very hard, quite movable, and very sensitive to pressure.

At about the center of its inner margin there was felt a nodulated mass, about the size of an English walnut, which was much harder than the remainder of the tumor, and which was much more sensitive, the patient complaining of nausea and great pain when it was handled, and especially when it was compressed between the fingers.

Believing the tumor to be the displaced kidney, and the nodulated mass a stone in its pelvis, I again made use of the aspirator needle, passing it through the tumor both from the lumbar region and from the loin in various directions, but without being able to encounter the calculus, probably from my great care in avoiding the large vessels in its neighborhood, as at the former attempt.

I now advised the removal of the whole kidney, after making a plain statement of the risks to be incurred, basing the advice upon the following conclusions, viz.:

First, the almost positive evidence of a large stone in its interior.

Secondly, the probability of the kidney being diseased and useless.

Thirdly, the fact of its being enlarged and displaced.

Fourthly, the strong probability of the patient's early demise from pain and exhaustion unless relieved by operation.

Fifthly, the facility with which the operation could be performed owing to the favorable position of the organ and the emaciated condition of the patient, together with the probabilities of the left kidney being sound, as indicated by the absence of casts in the urine, and in its ability to do the work of excretion alone, as it had doubtless been doing for several months, or possibly years past.

The patient cheerfully and gladly accepted the alternative, saying she preferred to take any risk which offered the faintest hope of relief, rather than to live on in her present condition.

Professors Thomas M. Markoe and T. G. Thomas were now asked to see the patient, confirm the diagnosis, and indorse the propriety of an operation. Both of these gentlemen agreed with me that the tumor in the loin was a displaced kidney, and, while not entirely unanimous as to the probable nature of its disease, were decidedly of the opinion, in view of the history of the case, that an operation for its removal would be eminently justifiable and proper.

Accordingly, at 3 P. M., October 14, 1882, in the presence of Drs. Post, Markoe, Polk, Lusk, Keyes, L. A. Stimson, Partridge, Wynkoop, Heuel, S. W. Smith, and Gibbs, the patient was brought under the influence of sulphuric ether, and an incision six inches in length made along the outer border of the rectus muscle on the right side, dividing the skin and superficial fascia down to the external oblique muscle of the abdomen. The other layers of the abdominal wall were then divided separately on a director down to the peritonæum. A few fibers of the attachment of the rectus to the seventh rib were also divided in order to obtain more room.

After controlling all hæmorrhage by torsion or the ligature, the peritonæum was incised on the director to the full extent of the wound. The right lobe of the liver now came prominently into view, projecting nearly two inches below the free border of the ribs, beneath which the kidney could easily be made out.

I next introduced my right hand into the abdomen, searched for, found, and examined the left kidney, making sure that it contained no calculus; that it occupied its normal position, and was of normal size and shape. The ovaries, uterus, and bladder, together with nearly all of the other treasures of the abdominal cavity, were interrogated in like manner, and were regarded as healthy.

The ascending colon was now drawn toward the median line of the body; the outer layer of the meso-colon scratched through with the blunt point of a director and the finger nail. On reaching the kidney, it was found to be somewhat adherent to the under or posterior surface of this layer of the peritonæum, as also to condensed bands of connective tissue in all directions. These, however, were separated by the finger without difficulty, and the kidney easily brought to the surface of the wound. The ureter was now tied with a strong ligature of carbolized, braided silk, and divided.

The four branches of the renal artery, together with the renal vein, imbedded in a mass of adipose and connective tissue, were secured *en masse* with a strong double ligature of the same material, the kidney removed, and the ends of the ligatures brought out at the most dependent part of the wound.

The peritoneal cavity was then sponged out with a weak solution (one per cent.) of carbolic acid, and the wound closed with three deep silver-wire sutures, including the peritonæum, three hare-lip pins and three or four superficial silk sutures, supported by strips of rubber plaster, the wound covered with a thick layer of carbolized cotton, a firm ab-

dominal bandage, and the patient placed in a warm bed. The operation occupied one hour, a large portion of which time was consumed in making the external incision and in controlling all bleeding vessels before opening the peritonæum. The patient bore the operation remarkably well. There was slight failure of the pulse when the abdominal cavity was opened, but it soon rallied under the effect of one or two hypodermic injections of brandy, the last of which was combined with $\frac{1}{4}$ of Magendie's solution of morphine.

At 8 P. M., pulse 80, of good quality, temperature $99^{\circ}75^{\circ}$, respiration 20; slight nausea from ether. Ordered pounded ice to be swallowed frequently, and gave $\frac{1}{4}$ of Magendie's solution of morphine hypodermically.

The kidney weighed $\frac{3}{4}$ vij, 3 v, grs. xxxv, was in a condition of chronic pyelitis. In its interior, and projecting into its pelvis, was an irregular, hatchet-shaped phosphatic stone weighing 135 grains. That portion of the stone which represented the blade of the hatchet occupied and distended the pelvis, while the part corresponding to the handle lay along the floor of the sinus.

October 15th to 20th.—Since the operation, patient's condition has been uniformly favorable. The pulse has averaged about 82 per minute, the temperature $100^{\circ}5^{\circ}$, respiration 20. She has passed about twenty-six ounces of urine per day, presenting the following conditions: Reaction, acid; specific gravity, 1.016; albumin, none; pus, none; blood, none; crystals, none. The wound has healed by the first intention, except where the ligatures lead out.

October 20th.—Bowels have not moved since the operation. At 2 P. M., patient is very nervous, and complains of intense nausea; abdomen slightly tympanitic, but not tender. Ordered large turpentine enema, which relieved her of some flatus, but no fecal matter.

October 21st, 9 A. M.—Looks badly; has not slept during the night; very sick at the stomach; retching incessantly; complains of dyspnoea, due, evidently, to interference with the function of the diaphragm from the now greatly distended abdomen; pulse 90, temperature $99^{\circ}5^{\circ}$. The turpentine enema was repeated, but it came away without even a change of color. Ordered cathartic of senna, manna, and Rochelle salts, after giving $\frac{1}{4}$ of Magendie's solution of morphine hypodermically. This was promptly rejected.

October 22d, 5 A. M.—Has passed a bad night; there are now all of the evidences of intestinal obstruction. Ordered Magendie's solution, $\frac{1}{4}$, followed by hydrarg. chlorate, gr. xx; 12 M., the calomel has been vomited, and the bowels have not moved; 4 P. M., large enema of carbonic-acid water, which came away unchanged; 6 P. M., Professor William M. Polk saw her in consultation, and regarded the symptoms as evidently those of obstruction without peritonitis; 7 P. M., passed rectal tube twenty-four inches into large intestine and injected through it two quarts of warm soap-suds containing a little turpentine, which brought away a small amount of liquid feces; 7.30 P. M., repeated the injection, with like result; 8 P. M., injected two quarts of carbonic-acid water, which, like the other injections, came away without affording any relief to the symptoms.

I now punctured the distended intestines through the abdominal walls in six or eight places with a small aspirator

needle, allowing the accumulated gas to escape; but as the vomiting continued, and believing that I had to deal either with an intussusception or with a twist in some portion of the small intestine, and as I felt sure the patient must die of exhaustion before midnight unless relieved, I resolved to open the abdominal cavity at the site of the original wound, introduce my hand, find the obstruction, and, if possible, reduce it.

The old scar was, therefore, divided with scissors to the extent of four inches, beginning at its lower extremity and using the ligatures, which still led out at this point, as a guide.

Having reached, in this way, the stump of the renal vessels and the ureter, I encountered, on their inner aspect, or toward the median line, a fluctuating tumor of the size of a hen's egg, into which I pushed a director, following this with my finger, and effected a free opening, from which about three ounces of very fetid pus were discharged.

The discovery of this abscess was something of a revelation, as there had been no symptom pointing to its formation, either in the way of pain, tenderness, rise of temperature, increase of pulse, or enlargement of that side.

As soon as the abscess was emptied, the ascending colon, which had evidently been obstructed at that point, as well as the other divisions of the large intestine, began a series of writhing movements, which could be seen plainly through the abdominal walls, accompanied by loud gurgling sounds, as of gas rapidly changing its locality. A considerable quantity of gas now discharged from the anus. Within twenty minutes the patient ceased vomiting and said she felt much better. The abscess cavity was washed out with a weak solution of carbolic acid, a drainage tube introduced, a hypodermic injection of morphine administered, and the patient left to rest.

October 23d, 9 A. M.—Slept three or four hours during the night; stomach quiet; has taken a little milk and brandy, and has retained it. Gave large enema through rectal tube, which brought away some fecal matter and much wind; 4 P. M., has had three large fecal movements since last visit; is greatly relieved thereby, but is thoroughly exhausted.

October 30th.—Has been in a very weak state since last report, but otherwise comfortable; has taken small quantities of milk, brandy, and beef-tea. Ligature on ureter came away to-day. The bowels have moved regularly; the abdomen has remained soft and natural, and free from pain or tenderness.

November 1st.—Urine turbid and offensive; contains a quantity of pus, with some shreddy particles and small coagula; has the same odor as the pus from the abscess.

I infer that the tied ureter has ulcerated off without closing its canal, and is draining the abscess into the bladder, especially as the abscess has nearly ceased discharging externally. Ordered bladder washed out twice daily with carbolyzed solution of borax.

November 15th.—External wound has healed, except where ligature on vessels leads out.

November 25th.—Ligature on vessels came away to-day, bringing with it quite a large mass of decomposed fat, fibrous tissue, etc.

January 13, 1883.—Since last report patient has re-

mained in a feeble state, owing chiefly, as I judge, to prolonged suppuration from the cavity of the abscess, which still continues to drain itself into the bladder. She passes an average of about thirty ounces of urine a day, which, aside from the pus it contains, is of a normal quality. She sits up for a short time each day, has a good appetite, good digestion, and is now evidently improving. Indeed, so far as the operation and the ability of her remaining kidney to do the work of excretion are concerned, I think I may safely say that the patient has recovered.

The chief cause, then, of her protracted illness after the operation seems to have been entirely due to a serious accidental complication, which, with a larger experience in such cases, might be avoided.

Remarks.—The operation of nephrectomy, first practiced by Walcott in 1861, and eight years later by Simon, has been performed about one hundred and six times, in forty-eight of which the results are known to have been fatal. This showing, though not of the most encouraging character, is sufficiently favorable to justify the operation in cases of incurable affections of the kidney in which it can be determined beforehand both that a second kidney exists, and that it is sufficiently healthy to do the work of excretion alone.

The kidney may be reached by one of three different routes—viz., first, through the lumbar region; secondly, by laparotomy performed in the median line; and, thirdly, by what is known as Langenbuch's method, or an incision through the abdominal walls at the outer border of the rectus muscle.

Thus far the lumbar incision has given the largest number of recoveries; but the necessarily limited extent of the incision in this locality, unless increased by resection of a portion of the twelfth rib, the greater depth of the wound, and the difficulties in dealing with such possible complications as hæmorrhage, adhesions, etc., together with the acknowledged greater danger of diffuse cellular inflammation, would seem to more than counterbalance the extra hazard of opening the peritonæum by abdominal section.

Langenbuch's incision, on the other hand, certainly enables the operator to expose the kidney with great facility, and to remove it in all cases if necessary, which can not be said of the lumbar incision.

Langenbuch's method also has this great advantage over section of the abdomen in the middle line: that there is much less trouble during the operation from protrusion of the intestines, and that the incision comes almost directly over the tract of the ascending colon, thus enabling the surgeon to reach the outer layer of the meso-colon, which contains very few vessels, simply by turning the large intestine toward the median line.

The proper management of the blood-vessels of the kidney and the ureter is a matter which larger experience alone can determine; but that upon the rightful decision of the question will often depend the success or failure of the operation, so far as the life of the patient is concerned, there can be no room for doubt.

Judging from my experience with a single case, if I were to do the operation again I should endeavor to isolate the four diverging branches of the renal artery, as well as the

renal vein, from the mass of fat and connective tissue surrounding them, and ligate each one separately, even at the expense of a little longer exposure of the peritonæum, rather than to tie them *en masse*, as was done in the present case; moreover, I would cut the ligatures short and leave them to take care of themselves, in the hope that they would either become absorbed or encysted, rather than to lead them out through the wound, thereby encouraging the formation of a suppurative tract.

To a neglect of these precautions I attribute the occurrence of the abscess which has delayed the recovery of my patient during the past three months.

With regard to the ureter, I believe that whenever pyelitis is present, and especially whenever a calculus exists, either in the sinus or in the pelvis, this tube is necessarily diseased, and that an attempt should always be made, therefore, to remove as much of it as possible by ligating its vesical extremity and bringing the remainder of it out through the lowest part of the wound, as recommended by Mr. Thornton; another argument, by the way, in favor of laparotomy over the lumbar incision.

Had this been done in the present case, I have no doubt that my patient would have been spared the annoyance of having an abdominal abscess drain itself into her bladder, although, under the circumstances, it could hardly have selected a safer place, aside from the external wound.

53 WEST 19TH STREET.

REMOVAL OF A VESICAL CALCULUS WEIGHING THREE THOUSAND FIVE HUNDRED AND FORTY-ONE GRAINS FROM A BOY SIXTEEN YEARS OF AGE.

By JOSEPH W. HOWE, M. D.,

PROFESSOR OF CLINICAL SURGERY IN BELLEVUE HOSPITAL MEDICAL COLLEGE.

THERE are many points of interest connected with the following case of urinary calculus. It is the largest calculus ever found in the bladder of a patient at so early an age as sixteen. Larger stones have occasionally been found in the adult bladder, before and after death, but they are of extreme rarity, and there are no cases that I can find on record of recovery taking place after their removal. The extraction of large calculi has always been attended with great mortality. The tables given by Crosse, in an analysis of seven hundred and four cases, afford a very clear illustration of this fact. He found that when the stone weighed from two to three ounces, the proportion of deaths was 1 in 2.18; from three to four ounces, 1 in 1.57; and from four to five ounces (the largest found), 1 in 1.66. In view of these statements, the successful removal of a calculus weighing over eight ounces, avoirdupois, must be regarded as exceptional.

The history of the case is as follows: Patrick Colbert, aged sixteen, residing at Greenpoint, L. I., presented himself at my college clinic, in Bellevue Hospital Medical College, on October 23d. He complained of pain in the region of the bladder during the act of urination, pain in the loins, and on the inner side of the thighs. There was a frequent desire to micturate, and a great increase in the pain during, and also after, the act. He first noticed pain during urina-

tion seven years before, but gave it little or no attention for a couple of years, until he noticed a great deal of sediment in the urine. He then consulted a physician in a city dispensary, who gave him medicine for what he called the gravel. The treatment relieved him for a while, but the painful symptoms returned again with renewed violence. Notwithstanding his illness, he was able to work at his trade in a junk-shop; but within the past twelve months he had frequent attacks of pain, accompanied with fever, compelling him to go to bed, where he would remain for several days, and then again resume work. An examination with a sound revealed the presence of a large stone. With the finger in the rectum its unusual dimensions were easily ascertained. Notwithstanding this, I deemed it advisable to attempt its extraction through the perinæum, thinking that I might be able to crush it with a lithotrite. I was assisted during the operation by Professor Dennis, and by Drs. Schweig, Waldo, and Willis.

The patient was etherized, and a grooved staff was introduced and held in position by Professor Dennis. An incision was then made in the median line, an inch and a half in length, down to the urethra, which latter was opened almost to the same extent. Wood's bisector was then passed on the grooved staff into the bladder. The opening thus made admitted the index finger with great ease, when the size and general character of the stone were readily defined. Although convinced that it would be impossible to crush it or remove it through the perinæum, I passed in Civiale's lithotrite, and endeavored to grasp the stone. Failing with this, I then tried Bigelow's instrument with a like result. Ceasing all efforts in this direction, the patient's position was changed and an incision three inches in length was made in the median line above the pubes, and continued down to the bladder. A sound introduced through the perineal wound into the bladder facilitated the incision through the anterior wall of the viscus, which was made from the border of the peritoneal fold above to the pubes below, fully exposing the stone. The bladder was then found to be firmly contracted on the stone in such a manner as to render it impossible to enter a forceps on its sides sufficiently far to grasp and extract it. After several vain attempts to remove it, both with the fingers and with the forceps, I passed my right index finger into the bladder through the perineal opening until it impinged on the lower border of the calculus, while above I grasped the rough projecting part with the fingers of my left hand. Then, by pushing with great force upward with the index finger and lifting with my left hand, I was enabled to force the calculus out of the bladder. It was held so firmly that several minutes were consumed in this manœuvre alone. During the manipulations through the abdominal incision the peritonæum was opened, and a loop of intestine came down. This was returned to, and retained in, its natural position without difficulty. The stone measured three inches in its longest diameter and two and a quarter inches in its transverse diameter. Its weight, as ascertained by Mr. Peabody, at Caswell, Hazard & Co.'s, was three thousand five hundred and forty-one grains.

After the removal of the stone, a piece of ice was placed

in the bladder, to control the hæmorrhage which took place from a spot on the floor of the organ, to which the stone

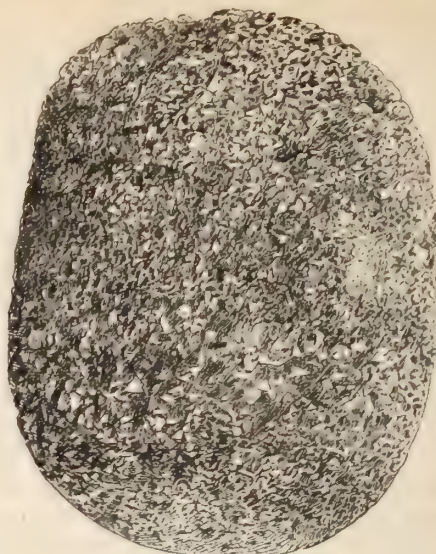


FIG. 1.

seemed to have been attached. As there appeared to be free drainage through the perinæum, I concluded to follow the old rule, and not place any sutures in the walls of the

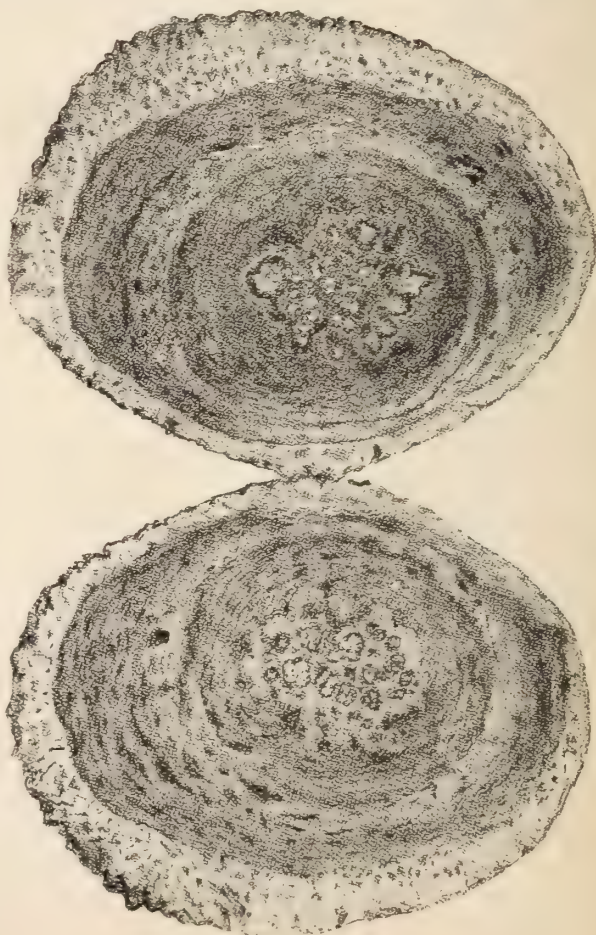


FIG. 2.

bladder. The opening in the walls of the abdomen was closed with silk sutures, excepting at its most depending

portion, where a space of half an inch was left for additional drainage.

The patient was ordered a teaspoonful of the United States solution of morphine, to be repeated every two or three hours until the respirations were down to thirteen a minute. In all operations where the peritoneal cavity has been opened, designedly or by accident, I have been in the habit of administering almost as much morphine as if the patient already had peritoneal inflammation. I am inclined to the opinion that peritonitis may often be averted by this treatment.

The patient recovered from the effects of the ether in a short time, but about an hour afterward began to show signs of collapse. His extremities became cold, and his pulse weak and fluttering. The house surgeon, Dr. Seabury, administered stimulants freely, and he soon rallied, seeming to be very little the worse for the operation. On the morning following, his temperature rose to 103° Fahr., and he complained of pain in his back, head, and limbs. The urine was oozing freely through the lower portion of the abdominal wound, and through the perinæum. On the third day after the operation (Wednesday), the urine had ceased to flow through the perineal wound, owing to the inflammatory tumefaction there, but it escaped very freely through the lower part of the opening in the abdomen. A small quantity also came away through the urethra. In order to make the drainage perfect, another suture was removed in front, which left over an inch of the incision at its lower part open. This was necessary, in order to insure the absolute safety of the peritoneal cavity, which had been opened during the operation. His temperature at this time was 102° Fahr., pulse 98. A gum-elastic catheter was introduced through the perinæum into the bladder, and allowed to remain. The following day, as only an ounce of urine had passed through the instrument, and as it occasioned considerable pain, it was removed, leaving the drainage to the abdominal opening. The urine flowed constantly at this point, and a few drops also escaped through the urethra. The temperature was down to 100° F., and his pulse ranged between 90 and 100. On Friday, the urine began to have an ammoniacal odor, and he complained of some pain in the hypogastric region. The bladder was then washed out with carbolyzed water, and afterward with a solution of borax. These washings were repeated three or four times daily until the opening got too small for the catheter.

On Saturday, his morphine was discontinued, with the result of bringing about a state of partial collapse. His temperature became sub-normal (97° F.), and his pulse was weak and thready. The renewed administration of the morphine, in conjunction with whisky and digitalis, soon relieved him. This sinking occurred again a few days afterward, from a similar cause, and was relieved, as before, by stimulants.

Little or no change occurred in his general condition during the next few days. He ate well, slept well, and had little or no pain. Two weeks from the date of the operation he was dressed and allowed to go up-stairs to the lecture-room of the college. He expressed himself as feeling strong and able to resume his work in the junk-shop. The

urine was still flowing freely through the abdominal wound, though the opening was comparatively small, and seemed to be closing rapidly. A small quantity of urine was passed by the urethra, but none whatever through the perinæum. The daily washing of the bladder was discontinued about this time, owing to the pain produced at the narrow opening by the passage of the nozzle of the syringe, and also because the water was comparatively free from ammoniacal odor.

Four weeks from the date of the operation the abdominal wound had entirely healed, and all the water was passed by the natural channel. He left the hospital a few days later, entirely well.

An analysis of the stone was made by Professor Doremus. He found that it "consisted of a central mass of nuclei, and five surrounding layers. The nuclei consisted of oxalate of lime. The first layer of matrix, in which the nuclei are imbedded, is composed of phosphate of magnesium and ammonium, phosphate and carbonate of lime, and traces of oxalate of lime. The second layer of matrix consists of phosphate of magnesium and ammonium and phosphate of lime. The third and fourth layers have the same composition. The fifth layer is formed of large crystals of phosphate of magnesium and ammonium. The two inner layers are the most compact. They contain a greater proportion of the phosphate of lime than of phosphate of magnesium and ammonium. The center layers are full of little cavities, being the spaces between the crystals. The whole calculus is remarkably free from uric acid or the urates. Even the dust from all parts of the calculus, the result of cutting it in two, yields but the slightest reaction for uric acid."

From a careful study of this case, and from an examination of the records of the extraction of large calculi through the perinæum and rectum, I am convinced that the suprapubic operation is the only safe one. The stone can be removed without lacerating important organs. Free drainage can be kept up through a perineal opening, as well as through the lower extremity of the abdominal incision, thus reducing to a minimum the danger arising from urinary infiltration and peritonitis.

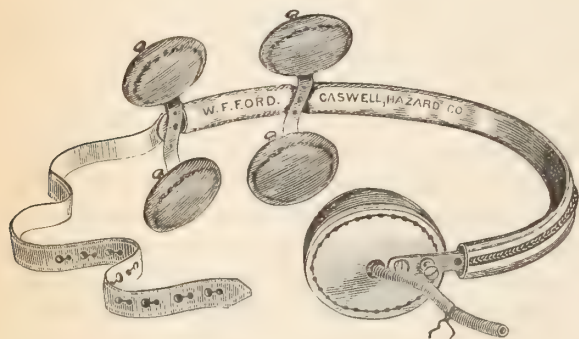
A TRUSS FOR THE RETENTION OF FLOATING KIDNEY.

By A. A. SMITH, M. D.,

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HAVING tried, in a case of floating kidney, to give relief by means of a compress and adhesive plaster as has been recommended, and failing, it occurred to me that a modification of a hernia truss might be of service. I described as nearly as I could to Mr. W. F. Ford what I wanted, and he constructed for me an instrument which resembled the hernia truss, except that the spring was straight instead of oblique. The posterior pad was oblong and was padded very little, the anterior one was round and padded quite full. The instrument answered the purpose fairly well. It kept the kidney from coming down and forward beyond the free

border of the ribs, and gave great relief to the unpleasant symptoms, but the patient complained of the pressure of both pads. She was quite nervous and hyperæsthetic, and was unable to wear it for more than a day or two at a time. The spring was purposely made long enough for the posterior pad to rest on the side of the spinal column, opposite to that on which the displacement occurred. About two years ago I showed the truss at a meeting of the Clinical Society, and asked for suggestions which might improve it. Dr. F. P. Foster suggested that if four small pads were placed at the posterior end of the truss it might be worn with more comfort. These pads were accordingly put on, so that two could rest on each side of the spinal column. This was



found to be a decided improvement. I had also a soft rubber air-pad put on anteriorly, and this has entirely overcome the objections to pressure, and makes it cleanly. The air-pad may be blown up, by a tube attached to it, and made very tense, or it may be made quite flat.

I have used the truss in two cases with very decided benefit. One of these patients was treated by different physicians for a long time for uterine and ovarian displacement, with no benefit. She now declares her symptoms, which have been attributed by her physicians to such displacements, are entirely relieved by the kidney-truss. She also makes the statement that she can now walk miles with comfort, whereas before she was not able to walk a few blocks without great discomfort.

In these cases the right kidney was the one displaced.

It is not expected of this truss that it will keep the kidney back in its proper place. All that can be hoped for from it is that it will prevent the kidney from wandering about the abdomen, coming in contact with other viscera, and preventing it from becoming twisted, which is probably the cause of the pain and great uneasiness so frequently complained of.

All patients with floating kidney will not consent to having it transfixed and stitched to the abdominal wall, as has been quite frequently done, nor will patients with a floating kidney which is otherwise perfectly normal always consent to have the kidney removed by abdominal section, as has been recommended and performed at least once in this country. This latter procedure I confess I am more than skeptical about. I am decidedly opposed to it, nor can its performance be justified on any other ground than that the affection makes the life of the patient miserable by the constitutional disturbance which it may produce. Even

under such circumstances it would be well to be thoroughly satisfied that the constitutional disturbances are due to the floating kidney.

I believe this truss will very frequently hold the kidney back from coming below the border of the ribs, and give decided relief.

Book Notices.

A Treatise on Therapeutics, comprising Materia Medica and Toxicology, with especial reference to the Application of the Physiological Action of Drugs to Clinical Medicine. By H. C. Wood, Jr., M. D., Professor of Materia Medica and Therapeutics, etc., in the University of Pennsylvania. Fourth edition, revised and enlarged. Philadelphia: J. B. Lippincott & Co., 1882. Pp. 736. [Price, cloth, \$6; sheep, \$6.50.]

In the very brief preface to this edition the author states that, "by a thorough revision of the book, with the aid of the most recent literature, he has endeavored to make it as perfect as he is able."

This statement, from such a source, is enough to assure the reader that he will find in the work the same thoroughness, and yet conciseness, which has marked the previous editions. The present book is larger by some dozen pages than the third edition. No essential changes appear, such additions as have been made being almost entirely under the sections devoted to the physiological action of drugs. The author does not abandon the wise conservatism which has distinguished his writings, or swell his list of remedies to suit the present rage for novelties. Turning over the pages, we note here and there a slight modification. The section on "Disinfectants" remains essentially the same, though we might have looked for some reference to the changes in pre-existing ideas as to their efficacy; that on "Emmenagogues" is as brief as before, in spite of the recent introduction of new remedies in that department. Under "Anæsthetics" we note a short paragraph on bromide of ethyl, its use being condemned. We might have expected some reference to the use of pilocarpine in diphtheria, of iodoform in surgery, of the new resins, such as resorcin; but, doubtless, the author decides, and wisely, to accept no new theories until they have been thoroughly proved. Wood's Therapeutics is not easy reading, neither can it be approached lightly, yet to the thoughtful reader it is pre-eminently a satisfactory book, appealing to his reason, while it stimulates his powers of observation. The student who has caught the spirit of its author can never become a mere routine therapist.

BOOKS AND PAMPHLETS RECEIVED.

The Annual Address, delivered before the American Academy of Medicine, at its Seventh Annual Meeting, in Philadelphia, October 26, 1882. By Traill Green, A. M., M. D., of Easton, Pa., President of the Academy. Philadelphia, 1883. Pp. 16.

Nineteenth Annual Report of the New York Society for the Relief of the Ruptured and Crippled, November, 1882. New York, 1882-'83. Pp. 32.

Scrofula and its Gland Diseases: an Introduction to the General Pathology of Scrofula, with an Account of the Histology, Diagnosis, and Treatment of its Glandular Affections. By Frederick Treves, F. R. C. S. Eng., Assistant Surgeon to, and Senior Demonstrator of Anatomy at, the London Hospital, etc. Philadelphia: Henry C. Lea's Son & Co., 1883. Pp. 77. [Paper; price, 10c.]

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FRANK P. FOSTER, M. D.

NEW YORK, SATURDAY, FEBRUARY 17, 1883.

URINARY SURGERY.

It will be noticed that this number of the journal is largely devoted to the surgery of the kidney and bladder. Were it only for the mere fact of our giving two cases of an operation that is at the present time exciting so much interest as that for the removal of the kidney, we should feel gratified at being able to lay such material for comparison before our readers; but, when we reflect upon the extraordinary features that will be seen to have been present in these two cases, as well as in Dr. Howe's case of supra-pubic lithotomy, the surpassing interest of this group of articles becomes obvious.

In view of the boldness with which the operative surgery of the present day grapples with grave visceral disease, as exemplified by paracentesis of the pericardium, by the modern treatment of empyema, to say nothing of the idea of treating pulmonary cavities *per viam artificialem*, by cholecystotomy, by the removal of portions of the intestinal tract, of the spleen, of the kidney, of the ovary, and of the uterus—in view of all this, it seems only a question of time, and very little time at that, when the great operations, as they then seemed, that brought glory to former generations of surgeons shall be relegated to the domain of minor surgery, to be served up in manuals “designed for gentlemen preparing for examination.” Some phases of this advance of operative surgery are more striking, more bloody, more brimming with the zest that springs from the appreciation of their being fraught with immediate peril; but that one of its aspects that unfolds to us the bold and steady push with which diseases of the urinary tract have been met reveals, equally with the former, the unmistakable features of grand surgery. Not only is this true of nephrotomy and nephrectomy, but the patient, careful, and multiplied achievements of Sir Henry Thompson and the brilliant conception and persistent work of Dr. Bigelow proclaim an amount of progress that goes far to place urinary surgery among the most advanced branches of our art.

While floating kidney is a condition that can scarcely be called a grave affliction, we are convinced that its importance is generally underrated. To what extent it may prove a burden to the individual, interfering with the pursuit of a livelihood, may be gathered from Dr. Weir's lecture. By improving palliative measures, as Dr. Smith has done, many a sufferer may doubtless be relieved. Still, in a certain contingent of cases, recourse must be had to an operative procedure. Wandering kidney, however, was not the condition that Dr. Polk had to deal with in the remarkable case that he relates in this number of the journal, but a misplaced kidney, giving rise to the most serious derangement of health and to a grave disability. As

comment founded on insufficient data in regard to this case has been given by some of our contemporaries, coupled with the suggestion that the unfortunate circumstance that the patient proved to have had but one kidney should act as a check upon the further performance of nephrectomy, we hold Dr. Polk's full and candid recital to be of the utmost importance. The risk he took was justifiable, but the worst that could have been anticipated unfortunately proved to be the case. This often happens in medicine, and must keep on happening so long as the art continues to fall short of perfection. The ingenious device of blocking up one ureter for the time being, by means of an instrument introduced into the bladder, so that the presence or absence of the other kidney may be ascertained, and, its presence having been determined, its probable capability of performing the work of two kidneys made out—a means that has occurred to Dr. Polk since his operation was performed—will doubtless meet with the attention that any measure having for its object the solution of such urgent questions ought to command. Actual trial must, of course, be made the final test, but *a priori*, while the manœuvre alluded to would undoubtedly call for a considerable degree of manipulative skill to make sure that it was adequately carried out, it may be looked upon as less objectionable than any proceeding heretofore devised for the purpose, if we take all sorts of cases into account.

Dr. Wright's successful case of nephrectomy is not only a striking example of what may sometimes be achieved, even under the most desperate circumstances, by a persistent employment of all possible resources, but an apt text for just such a discussion as Dr. Wright gives of the relative advantages of the lumbar and the abdominal incision.

The survival of the lad from whose bladder Dr. Howe removed so enormous a calculus by the high operation bears fresh testimony to the vigor of the recuperative powers in young persons with only local disease or injury. It illustrates also the wisdom of forbearing to persist in trying to drag a stone of such size through a perineal incision, and of resorting promptly to the more available region above the pubic arch. It may be doubted, indeed, if a preliminary perineal cystotomy, not altogether tentative in its purpose, might not often facilitate the removal of large calculi from the bladder by the supra-pubic operation, and add to the patient's chances of recovery.

LEPROSY IN THE UNITED STATES.

At a recent meeting of the New York Dermatological Society, the subject under consideration being a case of leprosy in the person of a patient that had been shown at the meeting, the question arose, how many cases of leprosy had been seen by the members who were present, not more than ten in number. These gentlemen, speaking from memory, and taking care to give such details as would prevent any individual case from being counted twice, were able to enumerate about thirty leprosy patients that had come under their own observation in New York and its immediate vicinity within the last eight or ten years.

Various localities through the country were also mentioned,

in which, within the knowledge of those present, single lepers were living; allusion was made to the well-known prevalence of the disease in certain districts within the Dominion of Canada; and it was stated that in the far Northwest, in the region lying between Puget's Sound and the Columbia River, the affection was very common among the aborigines.

Leprosy is probably seldom thought of by the great mass of our people, save in connection with the allusions made to it in the Scriptures, and even then it is doubtful if they realize in the slightest degree that the leper of antiquity has his counterpart in many quarters of the modern world. As a matter of course, those who have traveled in China, Norway, Spain, the West Indies, and various other countries in which the disease is common, as well as a few students whose reading has made them familiar with its prevalence in those parts of the world, are fully aware that leprosy has by no means ceased its ravages. As regards the community at large, however, and even a great many physicians who are not specially conversant with the literature of the subject, we can scarcely suppose that they entertain the slightest idea of the importance of the matter.

When we remember that leprosy prevailed in Great Britain and other countries, now nearly or quite free from it, in comparatively recent times; when we take into account the considerable Scandinavian immigration to our shores now going on; and, above all, when we reflect that the policy of isolation pursued by communities in which the disease is rife is not an ostracism of the leper on account merely of his loathsomeness, but a wholesome precaution for the general safety, founded on the conviction that leprosy is contagious, which conviction is forcing itself more and more on those who have made the matter a subject of scientific study—when we take all these things into consideration, and couple them with the grim fact that leprosy leads infallibly to death within a few years, we may well ask if it is not desirable for us as a people, and if it is not incumbent on the Government, to take steps to prevent the spread of the disease in this country. To be sure, the contagiousness of leprosy is not the rank communicability of the acute infectious diseases, nor perhaps does it rank with syphilis in this respect; but that it is contagious to such a degree as to make it unsafe to allow its victims to go in and out among their fellow-men year after year, seems to admit of little if any question. Certainly, the community should give itself the benefit of whatever doubt there may be in the case, and isolate the leper ruthlessly, and, as regards leprous immigrants, forbid their landing on our shores.

THE ELECTRICAL TREATMENT OF EXTRA-UTERINE PREGNANCY.

DR. A. D. ROCKWELL recently read a paper before the Harlem Medical Association, on the treatment of extra-uterine pregnancy, in which he referred to the first case which he was called upon to treat, a few years before, when the question was asked whether it was possible to destroy the life of the fœtus by the electric current. He replied that it could undoubtedly be done, but another question was, whether it could be accomplished without injury to the mother. This question was answered in the affirmative by the results that followed. The case

was one of tubo-interstitial pregnancy at the third month, an account of which, written by the attending physician, Dr. Charles McBurney, appeared in this Journal (vol. xxii, No. 3). Three other cases successfully treated by Dr. Rockwell have also published, the diagnosis in every instance having been confirmed by Dr. Thomas, and, in most of them, by Dr. Emmet also. More lately he has treated three other cases which have never been published, and which, if possible, even more strongly confirm the incalculable value of the treatment in these dangerous but somewhat rare abnormalities of pregnancy.

One of these last three cases was of a most interesting and unusual character, from the fact that with a normal uterine pregnancy was associated what, in the opinion of Dr. Thomas, was a tubal or extra-uterine pregnancy. Internal examination and conjoined manipulation revealed a tumor of about the size of a pullet's egg, situated about two inches to the left of the median line, nearly on a level with the brim of the pelvis, which could be moved from Douglas's cul-de-sac toward the margin of the ribs. The tumor gradually increased until it was larger than a billiard-ball. In the treatment, one pole was introduced to the mass through the vagina, and the current was rapidly interrupted.

The maximum of current strength employed was eighteen cells, or, to speak more accurately, as different apparatus vary much in electro-motive force, a power of 24 volts. The operation was repeated on October 25-28, and 30, 1882, causing the tumor not only to decrease perceptibly in size, but to change its seat by an inch or so as well. Since the last application it has gradually grown smaller, until now it can barely be detected. At the same time a six months' fœtus is now developing in the uterus.

In these conditions Dr. Rockwell decidedly prefers galvanism to other forms of electricity, both from the teachings of experience and because of the well-understood superiority of galvanism in physical, chemical, and physiological action. In any case of tubal pregnancy, and especially in those advanced conditions where the tube is greatly distended, and there is danger of spontaneous rupture, the possibility of hastening this catastrophe should never be lost sight of.

The tubes themselves are but slightly supplied with muscular fibre, and the danger would more especially arise from the powerful compression that is liable to be exerted by the abdominal muscles, and the effort should be so to diffuse the current proceeding from the external pole as to produce the least mechanical effect possible. The diagnosis of extra-uterine pregnancy is not always an easy matter, and in the various cases related the question might arise as to its accuracy. The eminence of the gentlemen associated in the cases, Dr. Rockwell thought, should be a sufficiently strong argument for the correctness of the diagnosis, but conclusive evidence, he thought, lay also in the effects of the treatment itself. The results of electrolysis are well known, but in no other form of tumor, cystic or otherwise, is it possible for the galvanic current, used as described, to produce such prompt results.

RARE DISLOCATIONS OF THE HUMERUS.

IN the "Nordiskt Medicinskt Arkiv" Dr. Leopold Meyer, of the Kommunehospitalet in Copenhagen, describes two cases of the "*luxatio humeri erecta*" of Middeldorff. In the first case, a woman, sixty-two years of age, fell in an epileptic convulsion eight days before her admission to the hospital. On regaining consciousness she became aware that her left shoulder had been injured, and the arm was fixed over her head. On entering the hospital she presented all the characteristic signs of a subglenoid luxation; but, besides a very pronounced abduction, the

arm was carried almost vertically upward, the forearm being flexed upon the arm so that the hand rested on the head. With the aid of anæsthesia, reduction was accomplished readily, by abduction and extension, followed by adduction. A paralysis of the nerves of the brachial plexus remained, which was attributed to the length of time that had elapsed between the infliction of the injury and the reduction of the dislocation. It did not yield to electrical treatment. The second case was that of a man who presented precisely the same dislocation. Reduction was effected at once, and he left the hospital.

In the same article the author reports, also, the case of a woman who dislocated both humeri at the same time by a backward fall while she was carrying a burden with each hand. In this instance both luxations were of the sub-coracoid variety.

Proceedings of Societies.

MEDICAL SOCIETY OF THE STATE OF NEW YORK.

FIRST DAY.—TUESDAY, FEBRUARY 6TH.

Evening Session.

(Concluded from page 162.)

[Dr. SQUIBB continued his remarks as follows:]

It may be said that this action was only concluded by the delegates who represented the county societies. But delegates with full power upon the general subjects of legislative bodies have no power to make constitutional amendments, and their action ought to be reversed. Nearly, if not quite, forty counties of the State have already condemned the action of this society, while the majority of the others have either not acted at all, or their action has not been published. Any revolutionary action should first be submitted to the American Medical Association before it is acted on by the State societies. In offering the resolutions, I only advocate the first. A year or two hence, action may become necessary on the others.

Dr. L. ELSBERG, of New York, moved that the Committee of the Whole report, when it rose, that the resolutions were not approved.

Dr. D. B. ST. J. ROOSA: The argument of the distinguished gentleman who has during the year inundated the State of New York with arguments against the society, merits, as it will receive, the most respectful consideration from those who can not agree with his conclusions. We honor him for a life devoted to the most sacred interests of the profession. We regret that he has given his great ability to the fossilism of the seventeenth century. The argument of the gentleman, if led to its logical conclusion, would disintegrate the society and blow it to the winds. The notion that these county societies may come up here and assert their right of secession would be regarded as absurd if it did not come from such distinguished lips. It is true that instructed delegates have come here from various societies, but there are other members here from the same counties, holding different views. Because New York happens to be large, is it to have no more votes than Alleghany County? If there ever was a spontaneous convention, it was the meeting of 1882. The action in adopting the new code was not taken in any packed convention of specialists. It was only equaled by this meeting here to-night. There was no unfair advantage of any kind, notwithstanding the assertions to the contrary. That meeting of the society did represent its constituents perfectly well. The discussion was an open discussion; the gentleman had his full say there. Mr. President, it is assumed by the gentleman that we have a connection with the American Medical Association. Let

us say, Mr. President, distinctly, we recognize no allegiance to the American Medical Association. The American Medical Association is not an incorporated association. It has never taken any position in the medical world that is at all to be compared with that of this society of which we have the honor to be members. The gentleman lays great stress on the word "revolutionary." All the advances in the world have been made by revolutions. Not against us can any such charge be made. The county of New York comes here unfettered and untied. The county of Kings is also unfettered, and almost united in upholding the action of the State society in 1882. The advancement of the profession would be promoted by resistance to the resolutions which are offered for the consideration of the society to-night. Gentlemen come up here bound and fettered as to what they shall do. When I had the honor to be president of this society, I instructed members that instructions of this kind were not binding.

If you are not willing to trust the ex-presidents of this society who favor this movement, whom will you trust?

It is said that this is a medical question. There I take issue at once. This is not a question of drugs or drugging; this is a question of ethics. All the community has been laughing at us for the last half-century. If we put upon our escutcheon that we seek to alleviate humanity, we shall be right, and we can afford to smile at those who uphold the trades-union system. The State Society should be liberal and progressive in its ideas.

Dr. H. G. PIFFARD: The gentleman undertook to show that our code of ethics was a sort of constitution; this, I think, is an error. The gentleman seemed to think that the county societies have the power to control the by-laws of this society. The gentleman overlooks the existence of the law of 1866, which gives to the State society control of the by-laws of the county medical societies. This is certainly the first time that I have ever heard the question raised of referring our by-laws back to the county societies. Let it be clear that the code is not analogous to the constitution of the State. It is simply a by-law which we can modify or repeal, and our action must be accepted by the county societies.

Dr. H. R. HOPKINS, of Buffalo: In the year 1806 there was a conviction in the minds of the people that it would be advantageous to organize the medical profession into societies, and this society was organized under an act passed that year. The scope of the society is defined within certain limits. Within these wide limits the society is supreme. We are assembled to-day from every part of the State, and we are to consider a question bearing upon the interest of the whole State. The essence of the question is, "Are we capable of self-government?" In the consideration of the question we now have before us, it is important that we should have clear ideas. The grant of the people to this society is the right to make by-laws "not contrary to, nor inconsistent with, the laws of the State or of the United States."

The first question is, Have you, Mr. President, the right to call upon others for their opinion? The next question is, Why have not I and others the same right? To maintain that one may refuse to consult with another because he does not like him is absurd. The practice under the old code may be fairly expressed by putting it in this way, "that no consultation shall be held with regularly licensed physicians who hold eclectic or homœopathic views." The people have created this society, and also eclectic and homœopathic societies. When this society assumes that its members may not meet regularly licensed physicians in consultation, it makes itself ridiculous.

Dr. H. D. DIDAMA, of Syracuse: I did not think it was quite so bad as the paper just read has put it. The two points I make are, first: This code of medical ethics, under which we have

been living and prospering, is one which we adopted as a condition of having representation in the American Medical Association. If we repudiate this code, then we have no right to representation in the American Medical Association. There is a little complaint to-day that our delegation was not received with respect and with open arms by the American Association. They were bound to refuse delegates who were sent from a society which repudiated their laws. There are three gentlemen here who are responsible for this code. Are we prepared to go with the fifty-three gentlemen who said last year that we should cut ourselves loose from the American Medical Association? The American Medical Association comprises in its membership the best men in the land. The best of us look up to the wise men there. We have been there as members, and we don't want to be cut off from them. I am in accord with the best societies throughout the world.

My other point is this, and this is a moral question—the first is a matter of taste; we could live, perhaps, if we were cut off from them: I take it that we all agree that a consultation is a conferring together. A consultation is a fraud, where no good can possibly come to the patient, when physicians consent to consult with persons who differ from them as light does from darkness. Those gentlemen who support the new code, will they tell me how any possible good can come to the patient by consulting with a man who believes that an ordinary dose—five grains of quinine—should be diluted in twenty-eight hogsheads of water, of which solution one drop should be given as a dose? Dr. Roosa knows that the homœopath would not give a dose containing any appreciable quantity of medicine. We claim that we give something, and they give practically nothing.

Dr. THOMAS F. ROCHESTER, of Buffalo: I rise with the full consciousness of the importance of this question. We have to look at the common sense of it. I say there is no casualty, there is no emergency, that medical men do not always go to, without regard to compensation. I am a permanent member of this society and of the American Medical Association, and I am proud of both of them; but, if I have to give up my membership in either, I will give up my membership in this. The American Association has been a called junketing association, a Rip Van Winkle association. What is this word "progress"? It is a good deal like the Irishman's definition of a retrograde movement—"an advance backward." What are we to gain by the first clause of this new code? It says we may go into consultation with homœopaths or others. Thus we have started down from our plane to meet them; they don't come up to meet us. What do we expect when we do go to them? We meet, we talk, we don't agree in therapeutics or diagnosis, but the people are satisfied. We can not do this without degrading ourselves, and I can not see any possible advantage to result. We can not reform homœopathy. But it is impossible for anything of this kind to take place. Perhaps we have been mistaken all the time. We have supposed that the homœopaths have either been giving infinitesimal doses, or else, as we know, they give such doses as we do, and perhaps a little more. Now, it is said, "Let us meet them with kindness, and the people will see it, and come over to us." Some gentleman said here to-night, "We won't call in these people." But that rule won't work; if they are to go with us, we must go with them. I call attention to this paragraph in the new code: "In case of acute, dangerous, or obscure illness, the consulting physician should continue his visits at such intervals as may be deemed necessary by the patient or his friends, by him, or by the attending physician."

Dr. W. C. WEY, of Elmira: That matter was carefully considered by the committee, and the code was amended by the insertion of the word "consultation" before the word "visits."

Dr. J. W. S. GOULEY, of New York: Mr. President, we are

making no progress. There are evidently three parties—the old-code men, the new-code men, and the no-code men. I offer a substitute for the resolution of Dr. Squibb. *Resolved*, That the new code of ethics, enacted by the society during its session of 1882, be repealed.

Dr. PIFFARD: I rise to a point of order; this is simply the resolution on the floor stated negatively.

The point of order was sustained. Dr. Gouley appealed from the decision of the Chair.

Dr. T. H. SQUIRE, of Elnira, called for the reading of the resolutions of Dr. Squibb.

Dr. J. C. HUTCHISON, of Brooklyn, contended that Dr. Gouley's resolution was in order, inasmuch as it was intended as a substitute for the whole of Dr. Squibb's resolutions. The Chair then reversed the decision, and admitted Dr. Gouley's resolution as in order.

Dr. ROOSA: That is a device of the enemy. Dr. Gouley is opposed to the old code and the new code.

Dr. PIFFARD rose to a point of order that this substitute would be equivalent to putting the previous question. "Are we ready for it?" he asked.

Dr. ROOSA: This is a device of the enemy. Are we ready for this question until we rise from the Committee of the Whole?

Dr. GOULEY: Dr. Roosa is himself opposed to the new code. He told me so quite recently.

Dr. WEY rose to the point of order that this was a question not competent for the Committee of the Whole. The Chair decided that the committee could take whatever action it pleased.

Dr. GOULEY then withdrew his amendatory resolution, and presented a resolution that when the committee rise it report in favor of repealing the code of 1882.

Dr. S. O. VANDERPOEL, of New York: No change can be made in the by-laws without a two-thirds vote, and this is an attempt to change the by laws by a majority vote.

Dr. GOULEY: We will have a two-thirds vote on this resolution. Be it understood that the vote on my resolution shall be a two-thirds vote.

The Chair ruled the resolution out of order.

Dr. C. R. AGNEW, of New York: I intend to be as brief as possible in saying what I have to say. A year ago this society, by a two-thirds vote, amended its by-laws to make them conform to the laws of the State. Efforts have been made to show that the action was hasty; such suggestions do not bear the test of criticism. Any effort for the good of man should be illumined by a higher light than the torch of persecution. Whence do we acquire the right to be here? Indisputably, from the State. No one but a regularly qualified medical man has a right to be here. The act of 1880, section 5, says: "The degree of Doctor of Medicine conferred," etc., "shall be a license for registration." That law defines what a doctor is, and this society has no power to make a definition. In the case of *The People ex rel. Gray vs. The Erie County Medical Society* (24 Barbour), Judge Marvin says: "The power given by statute to medical societies to make by-laws is not an arbitrary or unlimited power." "The by-laws must not be at variance with the general law of the land." Kent says "these corporate powers must be exercised reasonably," etc. The man whom the State has enfranchised, this society can not disfranchise. Pass the resolutions of Dr. Squibb; attempt by your vote to repeal the new code, and you take action which will certainly be decided to be against public policy.

What is a code of ethics? What is the power of the State society to enact one? What are the relations of the State society and the county societies? The State society and the county society are distinct corporations. The State society is not so much a distinct society as a power of control. If a vote were

to be taken by counties, and members voted as instructed, a resolution might be carried which was repugnant to a majority of the members. Who instructs permanent members? Who instructs me? If county societies could instruct members, the majority of county societies could control the State society. The authority to pass the old rule and the new rule of consultation must be found in the law.

This is a very serious moment in the history of this society. These gentlemen, amiable as they may be, are endeavoring to lead this society not only to the edge of an abyss, but down into an abyss. Adopt the resolutions, repeal the present code, and re-enact the old one, and you put this society in opposition to the policy of the State, and you attempt to coerce the members of this society into an attitude in which no person who is capable of construing the laws will agree with them.

Dr. LUCIEN HOWE, of Buffalo: There seem to be two factions here, and some excellent reasons have been given on both sides. The code as it now stands should stand, but I am inclined to think that we have been hasty in taking this step. It is true that New York is a large State, but we must remember that we are not the only practitioners in this country. It is with a view of perhaps reconciling these two factions that I venture to offer a substitute for these resolutions.

Resolved, That the Code of Ethics of the American Medical Association be substituted for the one adopted by the society at the last meeting; but that the delegates to that association be instructed to advocate such modifications in the code as would be in accordance with a spirit of greater liberality, or, if advisable, to urge that it be abolished entirely.

The point of order was raised that this meeting was called specially for the consideration of Dr. Squibb's resolutions. The Chair decided that any discussion of subjects germane to the question was in order.

Dr. SQUIBB: My wish is that the freest discussion shall be had.

Dr. ROOSA: There are two parties here: there are those who are determined to vote down Dr. Squibb's motion, and those who support it.

Dr. WILLIAM P. SEYMOUR, of Troy: I admire Dr. Roosa very much. I wish he was on our side. Dr. Roosa can talk a good deal, and say a good deal at the same time. I think it a damning shame that a specialist should be the only man to stand up here and defend the practice of ages. It seems as if no one could get the floor here unless he was in favor of the new code. I have a telegram here from Dr. Lewis Sayre. I do not mean to mince matters. I agree with the statement that we are on the verge of an abyss, but I believe that, if anybody goes into it, it will be those who flaunt the flag of philanthropy. They have talked law till I am sick. They have talked law as if we were made for law. Good God! the laws were made for us.

Dr. Seymour continued at great length against the present generation of men and the degenerate condition of the State society, stating that when he was a young man it was the best men who were sent as delegates, but now the elections were manipulated like those of a political ward meeting. He stated that he had been connected with three medical colleges, or, as he contemptuously designated them, "doctor-mills," and had been invited to become connected with two others, and to re-suscitate still another that was defunct, but he seemed to think it unwise to sustain or have aught to do with any of them.

The telegram from Dr. Sayre being called for, he read a dispatch stating that Dr. Sayre was confined to his bed; also a dispatch from Dr. Sayre to the effect that he had met in consultation a Dr. Baldwin, but there was nothing to indicate that Dr. Baldwin was a homœopath, and he did not know he was one till afterward.

Dr. HUTCHISON: I am ready to step into the abyss, and consider it the proudest moment of my life. I desire to read a petition which has been circulated in the city of New York, and which I have been requested to present here. The petition has only been circulated for a short time, or there would have been more names on it, but it contains already one hundred and two names; among them are the names of such men as Alonzo Clark, Austin Flint, and others of like character. The petition opposes the new code. I desire also to read a letter from Dr. Sayre. (The letter was further explanatory of the circumstances of the consultation with the homœopath.)

Dr. AGNEW explained that he had not spoken disrespectfully of Dr. Sayre.

Dr. VANDERPOEL moved that the committee rise and report progress. Carried.

PRESIDENT JEWETT resumed the chair, and Dr. Hutchins, as chairman of the Committee of the Whole, presented the report.

Dr. ROOSA moved that the society proceed to vote on Dr. Squibb's resolutions, and called for the ayes and nays.

Dr. SQUIBB inquired whether the resolutions should be put as a whole or *seriatim*.

Dr. ROOSA: As a whole, Mr. President. The best thing for us to do after we defeat Dr. Squibb's resolutions is to pass my original resolutions abolishing all codes.

Dr. GOULEY asked whether his substitute for Dr. Squibb's resolutions was not in order.

The PRESIDENT: It is not in order.

Dr. GOULEY: I offer it now.

Dr. PIFFARD: I move the previous question on Dr. Squibb's resolutions.

Dr. SQUIBB: Is it in order to withdraw a portion of my resolutions?

Dr. ROOSA: I object.

Dr. ROCHESTER: I move that the vote be taken *seriatim*.

A member inquired if it was competent to call for a division of the question.

The PRESIDENT: Not at all.

A member appealed from the decision of the Chair.

The PRESIDENT: The gentleman is referring to matters that took place in the Committee of the Whole.

A member inquired, "Can not the mover withdraw his resolutions?"

The PRESIDENT: Not at this time.

The motion that the previous question be now taken was put and carried.

The PRESIDENT decided that the resolutions must be put as a whole. The ayes and nays having been called for, the roll was then called. One or two members rose to explain their vote. One member, when his name was called, inquired whether members who were instructed by their county societies were at liberty to vote as they pleased or as they thought right.

The PRESIDENT replied that every member must settle such questions with his own conscience.

During the first part of the roll-call the ayes led very decidedly, but as the call proceeded the nays forged ahead, and the final result was 99 ayes and 105 nays.

The PRESIDENT very imperturbably announced that the resolutions, being in the nature of an amendment to the by-laws, required a two-thirds vote to sustain them, and, not having received such a vote, they were lost.

Dr. ROOSA: It is well known that those of us who have succeeded are divided into two parties. A portion of us favored the new code. A larger portion, I believe, took the position of the following resolution:

The Medical Society of the State of New York, in view of the apparent sentiment of the profession connected with it, here-

by adopt the following declaration, to take the place of the formal Code of Ethics, which has, up to this time, been the standard of the profession of the State.

With no idea of lowering in any manner the standard of right and honor in the relation of physicians to the public and to each other, but, on the contrary, in the belief that a larger amount of discretion and liberty in individual action, and the abolition of detailed and specific rules, will elevate the ethics of the profession, the medical profession of the State of New York, as here represented, hereby resolve and declare that the only ethical offenses for which they claim and promise to exercise the right of discipline are those comprehended under the commission of acts unworthy a physician and a gentleman.

Resolved, Also, that we enjoin the county societies and other organizations in affiliation with us that they strictly enforce the requirements of this code.

Action on this resolution was postponed to next year.

Dr. JOHN G. ADAMS, of New York, offered a protest against the action of the society, charging that it had "assumed an attitude and adopted a policy in direct and open hostility to the honor and the best interests of the medical profession."

The protest was received, and ordered on file.

SECOND DAY.—WEDNESDAY, FEBRUARY 7TH.

Morning Session.

The society assembled at 10 A. M., and was called to order by the President. Prayer was offered by the Rev. Irving Magee, formerly of the Lutheran Church, of Albany.

The Treasurer, Dr. C. H. Porter, reported a balance on hand of \$1,264.21. The report was referred to a committee composed of Drs. Perkins, Ely, and Hopkins for audit.

Dr. Porter, as trustee of the Merritt H. Cash Prize Fund, offered a report, which was accepted.

The Committee on By-laws and Hygiene reported that they had nothing to present.

Dr. F. R. STURGIS, of New York, read the report of the Committee on Legislation, recommending the passage by the Legislature of a bill, which he presented, to regulate practice, and throw additional safeguards about the practice of medicine. The committee also offered the following resolution:

Resolved, That the sum of five hundred dollars be appropriated by the Medical Society of the State of New York, to be drawn upon through the Treasurer upon the written order of the chairman of the Committee, to meet the necessary expenses incident upon the passage of any acts affecting medical matters, which the Committee on Legislation may be instructed by the society to attend to, and for any contingent expenses; and whatever surplus there may be shall be returned to the treasury of the society.

Dr. STURGIS spoke of the necessity of this appropriation, and of having an agent at the Capitol to look after legislation affecting the medical profession. During the year the Buffalo College of Physicians and Surgeons had been closed, and there was a prospect of the United States Medical College of New York being closed. At the last session of the Legislature a bill had been smuggled in to legalize them.

Dr. H. D. DIDAMA asked if any provision was made in this resolution for the prevention of the passage of obnoxious bills.

Dr. STURGIS: The resolution reads, that this sum of money shall be drawn upon to meet the expenses incident upon the passage of acts, etc. Of course, the committee would look after the non-passage of improper bills.

Dr. H. R. HOPKINS moved that the report be adopted, and said that the recommendation to have an officer on guard at the Legislature was of pre-eminent importance. In the closing

hours of the last session of the Legislature a bill was introduced without a word in it about medicine, which yet had a very important bearing upon the interests of the profession.

The report was discussed at some length, the tenor of the remarks tending to show that the registration law of 1880 was inadequate to meet the requirements of the profession, as under it quacks of all kinds could register and thereafter deem themselves legally qualified to practice. One of the members remarked that in his county an Indian doctor rode in the other day in his chariot and adorned with war-paint and feathers. He registered, and was now considered a legally qualified practitioner, and placed on a footing with other members of the medical profession. That the present law was inefficient was shown in the fact that a woman graduate of a New York college, said to be a notorious abortionist, brought a diploma to a county society, registered, and was now deemed qualified to practice. There was no principle connected with the matter of legislation which had not been sufficiently dealt with here. This society had never asked of the Legislature protection for an educated profession. To his judgment the society was in a position to go to the Legislature and say that it had no opinion to protect in regard to the action of medicine, but it had the opinion that the people would be better off by having protection for the education of the profession. It needed a law which should say to the people, "No matter where a man gets his education, if he can come before the board and show a proficiency, he shall be licensed."

Dr. VAN DE WARKER: The law of 1880 protects the quacks.

Dr. STURGIS: When the gentleman says that the law of 1880 protects the quacks, he is mistaken. We have made sixty odd prosecutions, of which only three have failed. The law of 1880 is the surest and safest way to get hold of quacks.

Dr. W. M. SMITH: The mere registration in the County Clerk's office does not make a man a qualified practitioner.

D. W. C. WEY seconded the motion to adopt the recommendations of the Committee on Legislation. The motion was carried.

A letter was received from Mr. Clark Bell, of the New York Medico-Legal Society, which was read by title and referred to the Business Committee.

A communication was read from Chancellor Pierson, of the Board of Regents, to Dr. Vanderpoel, relative to the appointment of a Board of Examiners. The communication stated that a board was appointed in 1875, some of the members of which had died, others resided in different parts of the State, and it was difficult for them to come together. In view of this, the Board of Regents had deemed it advisable to take action, requesting the matter to be brought to the notice of the State society, and requesting the appointment of a committee to confer with the Board of Regents and suggest suitable persons as examiners.

The communication was received, and the following resolution adopted:

Resolved, That a committee of three, consisting of Dr. S. O. Vanderpoel, of New York, Dr. E. M. Moore, of Rochester, and Dr. A. Jacobi, of New York, be appointed to confer with the Board of Regents in reference to medical examinations under chapter 746 of the Laws of 1872, and that the committee have power on behalf of this society to recommend suitable persons for examiners.

Dr. HUTCHISON, chairman of the Committee on the President's Address, reported that, in the judgment of the committee, (1) legislative enactments for the regulation of the medical profession were not to be desired. We had thus far seen but little advantage resulting from legislative action in matters relating to our status as individuals or as a society; (2) there seemed to be at present no better method for elevating the standard of

medical education and the efficiency of our medical schools than for physicians to discourage the study of medicine by those whose preliminary education was deficient, and to use their influence to guide students to those medical schools which furnished the most thorough course of instruction; (3) we did not consider that examinations conducted by a State Board of Examiners could be made so free from political influences as to be recommended to this meeting; (4) the active efforts of our State Board of Health deserved our hearty support; and (5) expressing an opinion adverse to changing the time-honored custom of delivering the annual address in the Capitol, but stating that, in the judgment of the committee, the annual address would be dispensed with, as the President's views on matters of interest could be incorporated in the inaugural address.

The report was accepted and ordered on file.

Dr. A. JACOBI, of New York, presented the report of the committee to co-operate with the Society for the Prevention of Cruelty to Children. The recommendation to isolate scarlet-fever patients, adopted by this society last year, had been brought by him before the New York society. Finding that no suitably isolated hospital existed in New York city, the committee recommended the erection of a suitable hospital at the foot of Sixteenth Street. The report of the committee was accepted.

The secretary read the report of Dr. J. W. WHITBECK, censor of the College of Medicine of Syracuse University. The report was accepted and placed on file.

The report of Dr. W. M. CHAMBERLAIN, of New York, delegate to the New Hampshire Medical Society, was referred to the Publishing Committee without reading.

Dr. PAUL F. MUNDÉ, of New York, read a paper on "THE ETIOLOGY AND TREATMENT OF NON-PUERPERAL UTERINE HÆMORRHAGE."

He limited his remarks to several features not hitherto recognized.

He spoke first of superficial non-puerperal erosion of the cervix uteri. Such cases might have been treated empirically by astringents, rest, and ice without relief; and upon examination the eroded cervix was brought into view, of a bright red color, and bleeding readily on being wiped with even cotton. The erosion at different times resembled the tomato, the raspberry, or the strawberry. When depending upon cervical catarrh it was found in virgins, in the married, and in multiparæ. In the poorly nourished it occurred more frequently. In addition to the intermenstrual discharge, the menstrual flow itself was prolonged. If occurring in the young girl, the patient was much annoyed by the staining; and the married patient feared injury to her husband. The diagnosis was easier than the cure. The surface should be exposed by the speculum, carefully cleansed and wiped dry, and a solution of nitrate of silver, a drachm to the ounce, should be applied; iodoform was then blown upon the surface and a pledget of cotton dipped in glycerine laid over all. An injection of sulphate-of-zinc solution might be used for three or four days, and a milder solution of nitrate of silver, say half a drachm to the ounce, might be applied through the speculum afterward. It might be necessary to use nitric acid, chromic acid, or pyroligneous acid, followed by astringent injections. Galvanism often gave good results. The removal of the hypertrophied glands was usually essential to the treatment. It was well to notify the patient that the cure was certain, but she must persevere for several months. Graft healthy membrane on the surface if required. A protracted menstrual flow without continuous intermenstrual discharge might depend upon superficial erosion and demand local treatment, even during the menstrual period.

2. In hæmorrhage due to lacerations of the cervix, the bleeding from granulations was not dangerous, but annoying.

The slightest touch would cause hæmorrhage, which might follow coition, or even walking. Snip off granulations or scrape with a curette, and use caustics, astringents, and, if necessary, perform trachelorrhaphy. So long as the cervical canal gaped, a return of hæmorrhage was probable.

3. Menstrual hæmorrhage, or intermenstrual oozing, when due to subinvolution, should be treated by hot-water injections twice daily, and by the internal use of ergot, sulphate of iron, strychnine, or viscum album. Subinvolution was a very common cause of cervical hæmorrhage.

4. Hæmorrhage in virgins was frequently due to hyperæmia of the endometrium, and was controlled by local applications of iodine when ergot had failed. Tonics might be required to restore to health.

In cases of pin-hole external os, menstrual blood was prevented from free escape, and, being lodged above the point of exit, it continually dribbled. Make an incision in four directions, turning the flaps over to an open funnel shape, thus allowing escape of the retained blood, and all oozing would cease.

Dr. E. VAN DE WARKER considered the paper one of the most valuable and practical that he had listened to for a long time.

He had used the actual cautery with advantage. It was nearly painless, and produced a revolution in tissue metamorphosis; one week would accomplish what would require weeks of treatment by nitrate of silver.

Dr. B. F. SHERMAN, of Ogdensburg, had used pure phenol (Squibb's) saturated with iodine for eroded cervix, hyperæmia, and a granular condition of the endometrium; it produced acute pain, which lasted but for a few seconds. When healing commenced, he had used the galvanic battery, from two to six cells, which lessened hyperæmia, and promoted healing more rapidly than any other treatment he had used.

Dr. F. A. CASTLE presented the following:

"Resolved, That the Committee on Publication be requested to publish in future volumes of the transactions of this society, as an appendix, a revised list of the registrations of physicians in the offices of the county clerks of this State.

"Resolved, That the sum of \$150 be appropriated to cover the expense of obtaining the necessary information.

After a long and rambling discussion, the resolution was tabled.

Dr. DIDAMA: Several gentlemen felt a little aggrieved by the action of the society last evening, and said they wouldn't have anything more to do with it. I hope that no gentleman will carry out the threat which he made when we were all warm. In order that we may have something to collect us next year, I offer this:

Believing that the so-called new Code of Ethics is opposed to the opinions of the majority of the medical profession throughout the world, as expressed in the action of county, State, and national associations, and in discussions in medical journals; and believing also that this so-called code, by removing wholesome restraints, encourages a spirit of lawlessness and sanctions fraud; that it is hurtful not only to the profession, but to the public; that its adoption sent a thrill of joy through the heart of every quack in the land, and gave pain to the wisest and best of our associates in the regular profession, I offer the following amendment to the by-laws:

Resolved, That all action taken at the annual meeting of 1882, in regard to changing the Code of Ethics, be repealed, leaving the code to stand as it was before such action was taken.

Dr. WEX moved to table, saying that the question was already covered by the resolution offered last evening and now lying on the table for action next year.

Dr. DIDAMA: This is an amendment to the by-laws, and must necessarily lie on the table.

Dr. ROOSA: This motion is out of order. It is an insult to the majority of this society. We insist that this battle shall not be continuously fought. To continually bring up this subject, heaping epithets upon us who are in the majority, is entirely improper.

Dr. DIDAMA: I am responsible for what I have said. I said, "I believe this to be true," not "it is true." These gentlemen have a little brief authority; they may not have it next year.

Dr. ROOSA: If the gentleman will present this in what we conceive to be an honorable manner, it may be presented every year until the year 2000.

Dr. DIDAMA: I claim the right to offer any amendment.

Dr. ROOSA: Without a stump speech inside of it.

Dr. WEY: I take the ground that it isn't an amendment in any sense.

Dr. ROOSA: We call for the ayes and nays, because it is evident that the understanding between us and Dr. Squibb has been broken.

Dr. VAN DE WARKER: The society is not packed this morning.

Dr. SQUIBB: I object to Dr. Roosa's statement that there was any understanding.

Dr. ROOSA: I do not see how any honorable man can approve of bringing this up again now.

Dr. ELSBERG asked Dr. Didama to withdraw the preamble, and simply propose the amendment to the by-laws.

Dr. DIDAMA: You do not act on a speech; you act simply on my amendment to the by-laws when it comes up. I simply made a written speech instead of an oral one. I have made my speech and I can not take it back, because it is spoken, and you can not help yourselves.

Dr. ELY asked Dr. Didama to read again what he desired to bring up next year. He understood that this whole paper was to be brought up. It seemed to him it was derogatory to the action taken last night.

Dr. DIDAMA: I did not propose to bring up anything next year except the resolution.

The whole subject was laid over until next year.

An official notice of Dr. S. M. Van Alstyne, of Richmondville, by Dr. A. Vanderveer, was read by title.

Dr. ELSBERG read a paper entitled "The Hypertrophic Form of Nasal Catarrh and its Treatment." The surgical treatment which he had formerly introduced by evulsion and cutting, though frequently successful, was so often unsuccessful as not to be recommended. Galvanism was successfully used in the removal of tissue. He commended the plan of transfixing hypertrophied tissue with a needle, and removing it with the *écraseur*; he preferred pinching it up with a forceps, instead of transfixing it with a needle. He approved of Dr. A. H. Smith's tubular scissors; the main objection to their use was the hemorrhage from cutting. He exhibited a slender forceps with canulated blades combined with an *écraseur* loop, which he had found a satisfactory instrument.

Dr. H. KNAPP, of New York, read a paper on "An Eighth Series of One Hundred Consecutive Cataract Extractions." In the hundred cases of cataract extraction there were ninety good results, six moderately good, only two positive failures. A septic healing of the wound was not enough; we must have primary union. The antiseptic era had not advanced ophthalmology. We were already beyond it. There was no sepsis in the eye if we had a clean operation. Rest was the next condition; the patient ought to lie as still as a mummy if he could do it. He remembered laying a frog's cornea on the microscope, and found that the movable cells went to the margin. There were no bac-

teria in the eye, but you had in half an hour inflammatory action of the part. The lymphoid cells migrated to the margin. This was the cause of the physical injury producing suppuration.

Afternoon Session.

In the absence of the President and Vice-President, Dr. WEY was called to the chair.

Dr. ROOSA read a paper on "The Injudicious Use of Quinine." He said that, in a paper read by him in 1874, he called the attention of the profession to possible dangers to the organ of hearing by the use of quinine. This led to a series of experiments upon human subjects by himself, and on animals by Dr. Hammond. Quinine was particularly harmful to ears which were already congested and predisposed to deafness. The primary effect of moderately large doses was to produce congestion of the retina and of some parts of the ear; there was vascular injection of the auricle, the auditory canal and papilla; there was tinnitus aurium, and a sense of exhilaration. It was harmful to ears already congested, and, in rare instances, produced temporary deafness and blindness. In some cases it might have been necessary to take the risk, but he believed that this drug was sometimes administered in cases where it proved harmful. In pyæmia, quinine appeared to be only harmful—unnecessary, injudicious, and possibly dangerous. Quinine was used freely in households in febrile conditions and catarrhs. From ten to fifteen grains were often taken with no other provocation than symptoms of a cold in the head. He believed it was dangerous when taken on the patient's own prescription. He admitted that in malarial fever and intermittent neuralgia quinine was necessary, but in the exanthemata from ten to fifteen grains daily would aggravate the condition, by shutting up the emunctories of disease-poison.

In the various febrile diseases, reduction of temperature was regarded as the desideratum; but sudden reduction of temperature had induced or aggravated collapse. The natural reduction of temperature might be better than reduction induced by quinine. A cold in the head, he believed, was aggravated by the use of quinine. In all colds affecting the aural passages, quinine was especially harmful. The practice of taking quinine to abate colds had an authority, but he disapproved of it. Whenever a drug as powerful and dangerous as quinine became the property of the laity, we might expect to see injury result from its use. In severe cases of fever we might be justified in taking the risk of the use of the drug.

Dr. T. R. POOLEY, of New York: My experience confirms Dr. Roosa's view of the effect of quinine in aural and retinal disease and in pyæmia. When we have exacerbations in the throat and pharynx, the symptoms are aggravated by the use of quinine. In a case of pyæmia following an operation for hemorrhoids, when large doses of quinine were given, the delirium was made worse. In the use of excessive doses of quinine there is a form of amblyopia induced.

Dr. JACOB: There was one remark of Dr. Roosa's which struck me. He says that the use of quinine induced collapse and lower temperature. May it not have been that collapse was setting in already? The quinine in such cases would not retard the decline of temperature and collapse which had already set in. My main objection to Dr. Roosa's remarks is that he did not make the distinction between pyæmia and septicæmia. It may be that he spoke of septicæmia, and only substituted the word pyæmia. I do not know of the presence of a poison in pyæmia. I do know of a poison in septicæmia. In pyæmia, pus is absorbed from an abscess or ulceration, and deposited elsewhere. Quinine prevents the migration of corpuscles, hence prevents metastasis of pus. Septicæmia may not be affected by quinine.

Dr. W. M. SMITH, of Syracuse: I find that cinchonine affects my vision much more than quinine does. Cinchonine diminishes the urinary secretion, and produces dryness of the mouth. I have a patient to whom I was giving a moderate dose of quinine, which made her decidedly deaf, while cinchonia did not. Cinchonidine abolished taste; canned peaches felt merely cold in the mouth, without flavor.

Dr. ROOSA: Experiments by myself and by Dr. Hammond, and by various German investigators, show that the primary effect of quinine is congestion, vascularity, and exhilaration; the secondary effect is depression; and this is one of the reasons why quinine is dangerous in depressing diseases. I don't believe in the distinction between pyæmia and septicæmia. I believe that there is a poison in pyæmia more than the mere transfer of pus, which should be properly eliminated, just as in septicæmia. There are conditions in septicæmia which are exactly like those in pyæmia. I once saw, in consultation, a child with aural disease, tenderness of the mastoid, and a red drum-head. The symptoms were represented to me as meningeal, or typhoid. Local antiphlogistic treatment would have relieved. When I opposed the use of quinine, the answer was given, "The temperature is 104°." Contrary to my advice, quinine was given, with fatal result; which result, of course, might have followed antiphlogistic treatment. I admit that the secondary effect of this drug is one of depression, but I insist that the primary effect is one of congestion.

Dr. HENRY W. WILLIAMS, of Boston, delegate from the Massachusetts Medical Society, related cases of ORBITAL CELLULITIS RESULTING FROM ERYSIPELAS.*

THE DEVELOPMENT OF CANCER FROM NON-MALIGNANT DISEASE. By Dr. DANIEL LEWIS, New York.

BOUGIES AND SUPPOSITORIES OF GELATIN FOR LOCAL INDICATIONS. By Dr. ROBERT NEWMAN, New York.

RUPTURE OF THE CHOROID. By Dr. T. R. POOLEY, New York.

WHEN SHALL THE TREPHINE BE USED IN FRACTURE OF THE SKULL. By Dr. F. E. HYDE, Cortlandt.

SOME POINTS IN OVARIOTOMY.

THE REMOVAL OF A STONE FROM THE BLADDER. (Two papers.) By Dr. G. H. SQUIRE, Elmira.

THE USE OF LACTIC ACID IN DIABETES. By Dr. L. E. FELTON, Potsdam.

PUNCTURED WOUND OF THE SKULL THROUGH THE EYE, WITH COMPLETE AMNESIC APHASIA. By Dr. W. GILLIS, Fort Covington.

The Committee of Arrangements announced the following gentlemen as

Members by Invitation: Drs. R. B. Granger, of New York; W. W. Potter, of Buffalo; A. H. Riley, of Clinton County; A. H. Moore, of Niagara County; C. E. Willard, of Catskill; T. A. Foster, of Maine; H. R. Starkweather, of Albany; H. C. Cooper, of New York; T. Z. Gibbs, of Fort Ann; E. Clark, of Sandy Hill; E. H. Squibb, of Brooklyn; M. J. Leroi, of Albany; T. W. Goff, of Cazenovia; R. C. McEwen, of Saratoga; H. S. Case, of Oneonta; G. D. Dunham, of Plattsburg; G. P. Clark, of Syracuse; D. F. Dayton, of Potsdam; Herman Bendell, of Albany; C. C. Bartholomew, of Ogdensburg; A. W. Phelps, of Chateaugay; William Hailes, of Albany; G. S. Munson, of Albany; John Edwards, of Gloversville; D. H. Cook, of Albany; J. B. Stonehouse, H. Lilienthal, J. C. B. Graveline, G. L. Ullmann, and S. E. Ullman, of Albany; S. G. De Le Matyr, of Duanesburg; C. B. Herrick, of Troy; R. H. Sabin and W. B.

* Owing to lack of space, we are obliged to omit this and the papers which followed, as also the discussions, giving only the title of the paper and name of author.

Sabin, of West Troy; E. B. Tefft, S. O. Vanderpoel, Jr., and Frank Townsend, of Albany; W. R. Pierson, of Schenectady; T. A. Foster, of Portland, Me.; H. M. Eddy, of Geneva; G. H. Newcomb, C. L. Merrill, and W. H. Munson, of Albany; I. G. Johnson, of Greenfield; A. B. Husted, of Albany; H. M. Eddy, of Ontario County; J. C. Carson, of Willard; I. de Zouche, of Gloversville; D. G. Tucker, of Albany; D. M. Wilcox, of Lee, Mass., and Thomas Riley, of Adams, Mass.; Lewis Granger, of Tioga County, Pa.; L. A. Tourtellot, of Utica; A. James Browne, of Newport, and C. W. Hamlin, of Middleville; J. D. Lomax, of Rensselaer County; G. E. Lyon, of West Troy; W. C. Cooper, of Troy; William Stevens, of New York; and D. H. Cooks, of Albany.

Evening Session.

ANNUAL ADDRESS OF THE PRESIDENT.

SOME OF THE PERILS TO LIFE FROM PREVENTABLE DISEASES.

THIRD DAY.—THURSDAY, FEBRUARY 8TH.

Morning Session.

Dr. SMITH, from Committee on Publication, reported that the delay in issuing the volume of Transactions for 1882 was due to the non-return of proof-sheets by the authors.

Dr. HOWE, of Buffalo, introduced the following as an amendment to the By-laws: "That the Code of Ethics of the American Medical Association be substituted for the one adopted by this society in 1882, and, having thus gained the unquestioned right to representation, that our delegates be instructed to advocate such modification of that code as shall be in accordance with a spirit of greater liberality, or, if advisable, to urge its entire abolition."

The resolution was laid over for action at the next annual session.

Dr. PORTER, of Albany, offered a resolution that a committee be appointed to confer with the Capitol commissioners concerning appropriating a room in the new building for the use of the State Medical Society. Adopted, and Drs. Porter, Bailey, and Mosher, of Albany, were appointed.

Dr. Porter also offered a resolution that a committee be appointed to consider the propriety of publishing, and to publish, if deemed desirable, the "Transactions," from 1837. Adopted, and Drs. W. M. Smith, C. H. Porter, and F. S. Curtis were appointed.

OFFICERS FOR ENSUING YEAR.

The Committee on Nominations submitted the following report, which was adopted:

For President.—Alexander Hutchins, of Brooklyn.

For Vice-President.—H. G. P. Spencer, of Watertown.

For Secretary.—William Manlius Smith, of Syracuse.

For Treasurer.—Charles H. Porter, of Albany.

For Censors.—SOUTHERN DISTRICT: J. W. D. Gouley, Austin Flint, F. D. Castle—all of New York.

EASTERN DISTRICT: C. E. Nichols, M. H. Burton, W. S. Cooper—all of Troy.

MIDDLE DISTRICT: Alonzo Churchill, S. G. Walcott, J. K. Chamberlayne—all of Utica.

WESTERN DISTRICT: C. C. Wyckoff, Thomas F. Rochester, F. F. Hoyer—all of Buffalo.

Committee of Arrangements.—S. B. Ward; J. S. Mosher, of Albany; W. S. Ely, of Rochester.

Committee on By-Laws.—W. C. Wey, of Elmira; N. G. Piffard, of New York; William Manlius Smith, of Syracuse.

Committee on Hygiene.—E. V. Stoddard, of Rochester; Stephen Smith, of New York; Jacob S. Mosher, of Albany; P. R. H. Sawyer, of Bedford; Caleb Green, of Homer; Edwin Hutchinson, of Utica; Theodore Dimon, of Auburn.

Committee on Legislation.—Jacob S. Mosher; Albert Vanderveer, of Albany; F. R. Sturgis, of New York.

Committee on Medical Ethics.—C. R. Agnew, of New York; E. M. Moore, of Rochester; S. Oakley Vanderpoel, of New York.

Committee on Prize Essays.—Thomas F. Rochester, of Buffalo; William S. Ely, of Rochester; W. W. Potter, of Buffalo.

Committee on Publication.—William Manlius Smith, of Syracuse; Charles H. Porter, of Albany; George J. Fisher, of Sing Sing.

Censor for the College of Medicine, Syracuse University.—C. S. Starr, of Rochester.

For Permanent Members.—*First District:* F. P. Foster, New York; Lawrence Johnson, New York; Alfred C. Post, New York; David Webster, New York; (J. H. Hobart Burge, Brooklyn;) John Byrne. *Second District:* J. J. Linson, Tarrytown; E. F. Quinlan, Monticello. *Third District:* S. B. Ward, Albany; C. E. Willard, Catskill. *Fourth District:* A. J. Browne, Herkimer; A. M. Phelps, Franklin. *Fifth District:* J. N. Goff, Cazenovia; J. D. Spencer, Watertown. *Sixth District:* L. D. Witherill, Union; D. W. Birge, Peach Orchard. *Seventh District:* J. B. Chapin, Millard; Alfred Mercer, Syracuse. *Eighth District:* W. W. Potter, Buffalo; J. W. Whitbeck, Rochester.

For Honorary Members.—T. J. Turner, of the U. S. Navy and National Board of Health; William Goodell, of Philadelphia; Lockhart Robinson, of Edinburgh.

Eligible to Honorary Membership.—W. Bronson, of New Caanan, Connecticut; Dr. Cabell, of the University of Virginia; Richardson, of the University of Pennsylvania; Professor James T. Whittaker, of Cincinnati, Ohio; W. H. Hingston, of Montreal.

Delegates to State Medical Societies.—*Massachusetts:* George C. Smith, of Rondout; Brush, of Utica; P. V. S. Pruyn, of Kinderhook; George G. Hopkins, of Brooklyn. *New Hampshire:* William M. Chamberlain, of New York. *New Jersey:* Joseph C. Hutchinson, of Brooklyn; Robert Newman, of New York. *Ohio:* Thomas R. Pooley, of New York. *Pennsylvania:* H. C. May, of Corning; Sol Van Etten, of Port Jervis; T. D. Strong, of Westfield. *Vermont:* D. Lyon, of Plattsburg; A. J. Long, of Whitehall; C. C. F. Gay, of Buffalo. *Connecticut:* P. V. R. H. Sawyer, of Bedford; E. V. Stoddard, of Rochester; George Douglas, of Oxford. *Canada:* B. F. Sherman, of Ogdensburg; H. G. P. Spencer, of Watertown; L. E. Felton, of Potsdam; James C. Hutchinson, of Brooklyn; R. J. Robb, of Amsterdam.

Respecting the delegates to the American Medical Association, the committee reports that it deems it inexpedient, at present, to name any delegates to that body.

The society then adjourned till the first Tuesday in February, 1884.

Reports on the Progress of Medicine.

QUARTERLY REPORT ON PREVENTIVE MEDICINE AND MEDICAL JURISPRUDENCE.

No. I.

By ANDREW F. CURRIER, M. D.

THE RELATIONS OF METEOROLOGICAL PHENOMENA TO MAN.—Dr. J. W. Tripe ("Brit. Med. Jour.," Nov. 4, 1882) remarks that sufficient data are wanting for a complete inquiry upon this subject. In the paper which he read before the Society of Medical Officers of Health, October 20, 1882, he did not attempt to cover the entire scope of the subject. The influence of ocean currents

upon climate is well-known, and the author referred particularly to its influence upon an insular country like England. The variations of atmospheric pressure, temperature, and humidity have a marked influence upon the physical condition. This may be seen in the peculiar sensations experienced at elevations of eight thousand feet or more. Change of function quickly occurs to one who removes to such an altitude. Hence the reasonableness of requiring such a change of residence for certain classes of patients. Variations of pressure and temperature exert a considerable effect upon the circulation of air contained in the soil, which is atmospheric air mixed with carbonic acid, marsh gas, sulphuretted hydrogen, etc. Rain causes a rapid escape of air from the soil. It has been found that, in localities where the ground-water is only five feet below the surface, ill-health prevails among those who live in that vicinity. Typhoid fever has frequently broken out after a heavy fall of rain succeeding a drought has washed the germs of disease into wells whose water is used for drinking purposes. Well-drained soil has lessened the mortality in districts previously affected with phthisis. The presence or absence of ozone in the atmosphere has an important bearing upon the quality of the air for inhalation. The development of bacteria is influenced largely by certain conditions of temperature, and, as Tyndall has shown, the influence of light upon these low forms of existence is by no means unimportant.

THE PREVENTION OF ZYMOTIC DISEASES.—In the "Lancet" for October 28, 1882, Dr. Thomas M. Dolan remarks that the scientific physician should approach the study of disease as a naturalist does that of animals and plants. The germ theory should be studied by the light of evolution. The author outlines the following plan of what should be done: 1. The genesis of contagium vivum. This will include the life-history of each form, applying the general principles of evolution to the genesis of each individual disease germ. 2. Reproduction, whether slow or rapid, whether from seed forms or by fission. The experiments of Dallinger and Drysdale on the life-history of some monads will serve as an example. 3. Development, maturity, and decay. Duration of life, morphology, physiology, etc. 4. Laws controlling contagion. Special seasons of activity; the influence of environment upon each disease; sanitary conditions, and relation to physical phenomena; influence of oxygen in the atmosphere; heredity; variations; crossing, or transmutation; susceptibility; relation of the habitat; progressive development of types; application of analogy of laws regulating plant life. 5. Distribution in its geographical relations. Influence of climate, warmth, moisture, winds. Effects of human interference. Distribution of disease in zones. General method of diffusion. 6. Geological distribution. Nature of soil, rock, drainage, etc. As to general preventive measures, he would establish a sanitary cordon around the world, with bureaus for investigation in all the great cities. From the statistics which will thus be secured, general conclusions can be drawn. His leading ideas are: 1. That the sanitary authorities of each country should work on one uniform plan, and under central direction. 2. That all sanitary authorities in every country should interchange maps, etc., and that the methods of recording disease should be the same.

THE ARTIFICIAL FEEDING OF INFANTS.—Dr. T. Hryntschak ("Arch. f. Kinderheilk.," iii, 11-12, 1882) thinks that two conditions are indispensable in any substance which is to be used as a substitute for breast-milk. 1. It must resemble breast-milk as nearly as possible in the quantity and quality of its nutritious elements. 2. It must be well borne alike by healthy and by sick children with reference to disturbances of digestion. Lactin has been recommended as answering these conditions, and experiments have been made by the author with the view of

testing the validity of such recommendation. The lactic is prepared in packages containing each twelve grammes. This quantity is to be dissolved in a quarter of a litre of hot water, and to this is to be added a quarter to half a litre of cow's milk, when the preparation is ready for use. The quantity of milk-sugar which is contained by one thousand grammes of the mixture is forty-two and nine tenths grammes, against forty-three and sixty-four hundredths grammes in breast-milk. This would seem to support the manufacturer's statement that the artificial preparation was nearly identical with breast-milk. That statement is disproved, however, by the addition of rennet to breast-milk, and to lactic. When added to the latter, it curdles in a few minutes, just as ordinary watered milk would do, and, after standing a short time, a tolerably compact coagulum will be formed. When added to breast-milk, on the contrary, there is no curdling at all, or only barely perceptible flecks in the course of thirty-six hours. Besides, there must be a difference between the casein of cow's milk and that of breast-milk. The lactic is prepared from whey, and the salts which it contains, and which are in different proportion from that which is in breast-milk, must render its action different from the latter. The chief constituents of lactic are milk-sugar, a starch-containing substance, the salts of the whey of cow's milk, bicarbonate and chloride of sodium. Its effect upon the human system must be the same as that which would be produced by an equal quantity of cow's milk mixed with rice or barley gruel, and with an equal quantity of milk-salts added. A table of seventeen cases is given in which the lactic was used. The patients varied in age from three weeks to one year, and were of the usual character met with in polyclinic practice. Most of them were affected with intestinal disorders when brought for treatment. No positive improvement could be attributed to their treatment with lactic. If the weight increased rapidly at first, and the stools became natural, in a short time the effect of the treatment disappeared in several of the cases, and the former troubles recurred. In other cases a change to ordinary watered and sweetened milk was made, and the patients seemed to thrive quite as well upon it. Even when children did well, as to weight and general condition, when fed upon cow's milk and lactic, they were, as a rule, troubled with diarrhoea, due, doubtless, to the great quantity of salts in the preparation. The author concludes that lactic does not fulfill the conditions stated in his two propositions at the beginning of the paper, is not, therefore, an ideal preparation, and, in some cases, will do harm. As a general rule, proprietary mixtures must be received by the physician with distrust.

EXAMINATIONS OF WATER AND AIR.—Mr. Romyn Hitchcock ("Jour. of the Franklin Institute," Nov., 1882) proposes the following question: Under what circumstances can a chemist condemn a water for household use? Waters containing chlorides, nitrites, and other substances, indicative of contamination with sewage or other organic matter, are unsafe, though it is seldom that disease can be attributed to their use. Hence, it must be another element which produces such diseases as typhoid fever. This is generally conceded to be a living microscopical germ, which develops and multiplies in the water; but this is quite out of reach of a chemical analysis. The drainage from vaults containing human dejecta is not necessarily unhealthful. It is when this drainage contains disease germs that the mischief is done. In regard to the examination of air, there is much confusion as to the value of results. This is without reference to the known injurious influence of carbon dioxide, carbonous oxide, and other noxious gases. Air which is chemically pure may be a vehicle of contagion, and that which is chemically impure may be harmless as to contagion. Thus ammonia, sulphuretted hydrogen, and other gases which arise from the decomposition of refuse matter in the streets, will not breed a

pestilence, so long as the germs of disease are not present with them. It is probable, however, that the development of these germs is favored when the other conditions obtain. These germs may be collected from the air by means of cotton. The author sums up the result of experience as follows: We have no means of determining when a water which analysis shows is liable to become a carrier of disease does become active in its dissemination, nor can we yet determine whether the air we breathe is or is not loaded with the germs of disease. It is to be considered a national misfortune that the National Board of Health has been unable to secure an appropriation adequate to continue its work and the publication of its bulletin. The great decrease in the death-rate in England and Wales since 1841 is considered to be due largely to the effect of sanitary laws upon the prevalence of certain zymotic diseases. Another important and kindred subject pertains to the efficiency of disinfectants. The agent used must be strong enough to destroy the living germ or to neutralize the chemical poison. Ordinary aerial disinfection is utterly useless. The only efficient method in the sick-room consists in the immediate disinfection of all refuse, and thorough ventilation.

THE ANALYSIS OF WATER.—In the same journal, Mr. Reuben Haines remarks that many difficulties accompany such investigations. The substances found, whether living or dead, can not always be identified, and some of them are evidently capable of doing harm, even when present in very small quantities; different opinions, too, are expressed by chemists regarding the wholesomeness of waters, according as they have followed different methods of analysis. Wanklyn's Ammonia Method is extensively used; but other chemists are not entirely agreed as to his meaning in different parts of his book of instruction. The method appears to be simple, and easy to follow; but experience has shown that many precautions not stated in the book are necessary, which lead to confusion. The author offers this paper as his interpretation of the method. The retort and the condenser should be connected by means of a short piece of wide rubber tubing, which should be fastened upon each with a piece of cord. It is unnecessary to say that all the apparatus should be thoroughly clean. "Bumping," or boiling over, of the water in the retort may be best prevented by watching carefully, and quickly removing the Bunsen burner as soon as a tendency to do this is manifest, also by allowing the distillation to proceed more slowly. Each separate distillate should be accurately measured, and a permanent record made of the quantity of ammonia which it contains. If more than three fourths of the total quantity of free ammonia is obtained by the first distillation of fifty cubic centimetres, the water would at once be condemned, if it comes from a shallow well or spring. An important part of the process is the use of the Nessler test for colorimetric purposes, and which is, of course, entirely unavailing, if the experimenter is color-blind. The alkaline permanganate solution which is used in the process must be entirely free from ammonia. This result may be obtained by dissolving the required quantity of caustic potash and of permanganate in separate portions of distilled water. They are then to be mixed, diluted to fifteen hundred cubic centimetres, and rapidly boiled in a capacious flask over a Bunsen burner down to five hundred cubic centimetres. A further dilution to twelve hundred cubic centimetres is then to be made with distilled water, and this is to be boiled down to nine hundred cubic centimetres. After this has cooled, sufficient water, which has been redistilled with alkaline permanganate until free from all traces of ammonia and organic matter, must be added to make a litre of the mixture. The remaining particulars are too technical to be of general use.

THE SIPHONAGE OF TRAPS.—A writer in the "Sanitary News" for November 1, 1882, details a series of experiments

by Mr. George E. Waring, Jr. Several traps were tried, among them the *S*, the *Bower*, the *Garland*, the *Paragon* of Brandeis, and the *Mercury Seal* of Nicholson. These were placed in succession at the end of a one-and-a-quarter-inch horizontal waste-pipe which emptied into a soil-pipe near its base through a four-by-two-inch Y branch. Vents in the waste-pipe were alternately opened and closed. Above the waste-pipe, and discharging into the soil-pipe on either side, were a bath-tub and a water-closet. The soil-pipe was four inches in diameter, extended upward several feet, and was furnished with a flap-valve at the top, which was closed during some of the experiments. The experiments were as follows: First, the bath-tub was filled, and its contents were alone discharged by opening the two-inch valve. Next, the water-closet bowl was filled and discharged. Then both were filled and discharged together. When the soil-pipe was closed at the top, and no vent left in the waste-pipe, all the traps were completely siphoned. When the vents were opened, one after another, and the bath-tub alone was emptied, the *S* trap lost from half an inch to an inch of water. It lost from an eighth of an inch to an inch with no vents open and the valve upon the top of the soil-pipe partly open. With the valve entirely open, Bower's and Garland's traps lost no water, and no motion of their ball-valves was perceptible. If the bath-tub and the water-closet were discharged together, more water than in the former instance was lost from the *S* trap, but the seal (three inches deep) was not broken. In this instance, also, no water was lost from Bower's and Garland's traps. With the soil-pipe open at the top, and the vents opened successively, when the bath-tub was discharged, either alone or simultaneously with the water-closet, neither of the three traps last mentioned lost any water. The experiments were repeated after extending the soil-pipe by fifty feet. The traps lost more water, but were not siphoned. Other experiments were also made, but the summary of the entire series is as follows:

1. The flow of drainage through a four-inch vertical soil-pipe, not ventilated at the top, produces a very strong suction on branch-pipes the mouths of which it passes.

2. The opening of the four-inch soil-pipe at the top practically prevents such suction, even when the upper part of the pipe is seventy feet in length, and circuitous in its course.

3. If each bath-tub, wash-basin, sink, etc., wastes by an independent outlet to a branch of a four-inch soil-pipe, open at the top, the siphoning of even ordinary *S* traps having more than one inch of seal is not to be apprehended.

4. If one vessel discharges into a branch leading from another vessel, the discharge of the latter may produce a suction on the *S* trap of the former sufficient, nearly or quite, to break its seal, unless of unusual depth.

5. When the conditions are the same as in the last instance, the suction is not sufficient to cause the ball of Bower's trap to drop away from its bearing, nor is it sufficient entirely to remove the water from traps which, like Garland's and Cudell's, are closed by a valve bearing vertically downward upon its seal.

6. Brandeis's paragon trap showed no material superiority over the *S* trap. The water, under strong suction, was entirely removed from Nicholson's trap, but its mercury was not, and evidently could not be disturbed.

7. Mott's "anti-siphoning" Y branch of the soil-pipe possesses no material advantage over the ordinary Y branch.

Notwithstanding the fact that Mr. Waring insisted upon the accuracy of his experiments, conclusions differing from his were reached after another series of experiments by Philbrick and Bowditch, also conducted at the request of the National Board of Health. In these experiments it was found necessary to have a vent-hole in the trap, one inch and a half in diameter, with or without an opening in the top of the soil-pipe, in order to

prevent siphonage. The vent-hole or vent-pipe should be placed in the crown of the trap, and should exceed one inch and a half in diameter when the latter is of large caliber.

Other Noteworthy Papers.

ARMAINGAUD.—Rapport sur les sanatoria maritimes pour les enfants scrofuleux et rachitiques. "Union méd.," Dec. 14, 16, 21, 23, 1882.

BILLINGS, J. S.—The registration of vital statistics. "Am. Jour. of the Med. Sci.," Jan., 1883.

BRIGIDI, V.—Sui bacterj. [Rivist. sintet.] "Sperimentale," Oct., 1882.

FIELD, R.—Drainage and ventilation of houses. [Soc. of Med. Officers of Health.] "Brit. Med. Jour.," Dec. 2, 1882.

KEER, N. S.—The public medicine aspects of the alcohol question. [Brit. Med. Assoc.] *Ibid.*, Sept. 23, 1882.

KOEFOED, P.—Ajaccio som Vinterstation. "Hosp.-Tidende," Nov. 1, 1882.

MAEJOLIN.—Mesures hygiéniques qu'il est utile de prendre contre la fièvre typhoïde. [Acad. de méd., Paris.] "Progr. méd.," Oct. 28, 1882.

MOLINA, P.—Construcciones urbanas. "Higiene," Nov. 14, 1882.

REIG Y GASCO, J.—Determinar el influjo que ejerce en la génesis de las enfermedades una alimentación insuficiente, y sus consecuencias en el soldado para los actos del servicio militar. "Gac. de Sanidad Militar," Oct. 25, Nov. 10, 1882.

RUSSELL, I.—Medico-legal relations of insanity. "Boston Med. and Surg. Jour.," Dec. 14, 1882.

SABINE, G. K.—The medico-legal relations of chronic alcoholism; its pathological aspects. *Ibid.*, Nov. 16, 1882.

STANISLAS, C.—Delle materie organiche nelle acque potabili e del giudizio della bontà delle acque medesime. "Ann. di Chimica," Oct., 1882.

———Calefacción de las habitaciones. "Higiene," Nov. 14, 1882.

———Delle analisi e delle perizie di vini nei rapporti coll'igiene pubblica. "Ann. di Chim. Appl. alla Farm. ed alla Med.," Nov., 1882.

———Desinfeccion de las procedencias marítimas. "Higiene," Nov. 14, 1882.

———The study and science of hygiene. [Editorial.] "Med. and Surg. Reporter," Oct. 28, 1882.

Miscellany.

ARMY INTELLIGENCE.—*Official List of Changes of Stations and Duties of Officers of the Medical Department, United States Army, from February 3, 1883, to February 10, 1883.*—DE LOFFRE, AUGUSTUS A., Captain and Assistant Surgeon. Will be relieved from duty in the Department of the Missouri and report in person to the Commanding General, Department of the East, for assignment to duty. Par. 3, S. O. 26, A. G. O., January 31, 1883. —ELBREY, FREDERICK W., Captain and Assistant Surgeon. The leave of absence on surgeon's certificate of disability, granted July 21, 1882, is extended six months. Par. 5, S. O. 26, A. G. O., January 31, 1883. —TAYLOR, B. D., Captain and Assistant Surgeon. Granted leave of absence for one month, on surgeon's certificate of disability. Par. 2, S. O. 13, Department of Texas, February 1, 1883. —TAYLOR, MARCUS E., Captain and Assistant Surgeon. So much of S. O. 20, A. G. O., January 24, 1883, as directs him to report in person to the Commanding General, Department of the East, is amended to direct him to report in person to the commanding officer, David's Island, New York Harbor, for duty at that station. Par. 2, S. O. 33, A. G. O., February 8, 1883.

Lectures and Addresses.

AN ABSTRACT OF

THE PRESIDENT'S ADDRESS,

DELIVERED BEFORE THE NEW YORK ACADEMY OF MEDICINE,
FEBRUARY 1, 1883.

BY FORDYCE BARKER, M. D., LL. D., ETC.

FELLOWS OF THE ACADEMY: I can not commence my remarks in the usual form by thanking you for again placing me in this position, for I had earnestly desired that the responsibility and labor involved in the effort to discharge the duties of the office which I have had the honor of holding by your kind suffrages might end with my second term of service. At a former meeting of the Academy, I stated my reasons for declining to be a candidate for renomination, which I hoped would be as conclusive in influencing the action of the Academy as they were in my own mind. I have always felt that a third term of service as President would, on general principles which I will not stop now to detail, be a doubtful and a dangerous experiment, not only for the incumbent, but for the interest and usefulness of the Academy. Furthermore, I felt that I did not owe the honor to professional merit or eminence, but that, on the part of the Academy, it was an expression of confidence that the duties of the office would be performed conscientiously, zealously, and faithfully. If the election was based on the principle of conferring honor, I know perfectly well that there are others much more deserving, or, if it were to be based on fitness and adaptation to best serve the interests of the Academy, I was equally sure that there were others who would bring to the place new strength and equal zeal and earnestness.

I can not deny that I had strong personal motives that influenced me in declining, because of the time and work which are required to perform the duties of the office well. But the general sentiment has been expressed to me so unequivocally, not only by individual solicitations by those who by their work have shown the greatest interest in the future of the Academy, but by the unanimity of your suffrages, that I feel the duty is plain for me to sacrifice personal feelings, and to yield personal convictions to the expressed judgment of the Academy.

Having relieved my mind by defining my position, I wish to relieve it still more by avowing not only my warm appreciation of this recent expression of your confidence, but my profound thanks for the aid and constant support which I have received, from the office-bearers as well as from the Fellows of the Academy, as a body and as individuals. It is a most grateful duty for me to acknowledge that I have never asked aid from a single Fellow, whether in the form of money, time, or mental work, that it has not been most cheerfully and promptly given, or some valid reasons, such as previous engagement, ill health, or necessary absence, been regretfully assigned. I think the character and high purposes of the Academy have been gloriously illustrated by the fact that in its past sixty-four sessions, to the best of

my belief, all have worked together most harmoniously, and not the slightest jar or irritation has occurred to disturb friendly personal relations. Naturally there must be difference of opinion in regard to matters of science and of practice: but the arguments in favor of one or the other side have been listened to with deferential politeness, and answered without temper or personal feeling. Questions of policy and expediency have been warmly discussed by those of decided convictions, but all have shown a readiness to yield to the expressed opinion of the vote of the majority, and no sting or rancor of feeling has been left behind. With this spirit we can count on a great future for the Academy.

The past and the future of the New York Academy of Medicine seem to me the most appropriate theme, when precedent has made it the duty of the Chair to take up the time which is usually occupied in a more important and profitable way in scientific work.

Of the one hundred and eighteen leading physicians and surgeons of this city who, thirty-six years ago, had the happy conception to unite in organizing this academy of medicine, there are now living but twenty-four, and some of these are still active working fellows, conspicuous by their never-flagging interest, their never-wavering devotion, their never-intermitting work in the interest of the Academy, and their almost uniform presence at its meetings.

Our library now contains over nineteen thousand volumes and between five and six thousand pamphlets, and I may say that it is daily increasing by the generous donations of friends. By the will of the late Dr. Robert A. Barry, and by that of the late Dr. Edward O. Beadle, it has received from the estate of the former 244 volumes, and from the estate of the latter 846 volumes, 568 pamphlets, and 537 numbers of medical journals. The generous gifts of our noble benefactor, Dr. Abram Du Bois, still continue to pour in upon us, and many medical publishers, both of this country and of England, have laid us under obligation by their kindness in sending us their new issues, a most liberal policy, as well as wise and remunerative from a business point of view. By the generous donation of a lady whose interest in the Academy and whose appreciation of its importance to the profession and the public continue unabated, by the noble and unexpected gift from the Northwestern Medical and Surgical Society, which it is to be hoped will prove an infectious example and precedent for other of the smaller societies of the city, and by individual subscriptions, the circulating department has been placed on a most efficient basis, and is working, I trust, in a way most satisfactory to all interested, whom a little paragraph on our notice card clearly defines as those whose dues are paid. Our journal department is kept up to its former standard of excellence and completeness. I must not omit to state that the lady before referred to, who gave for this purpose, as you know, five hundred dollars two years since, authorized me to purchase, the past summer, any rare and valuable books that, in my judgment, such a library as this should possess; some such are already to be found on our shelves, and more will follow as soon as copies can be found for sale.

Passing to the personnel of the Academy, our faithful statistical secretary has reported at our meetings during the past four years the death of thirty-five of our Fellows, some of whom I will mention. Freeman J. Bumstead, James R. Wood, John W. Draper, George M. Beard, and others whose names do not at the moment recur to me, had attained such eminence by what they had done in the profession that they were well known in all parts of the world where there is a medical literature.

From our recording secretary I learn that in the past four years the Academy has elected and received one hundred and forty-seven new resident Fellows. Several have removed from the city, and, by their request, they have been elected non-resident Fellows. I have also the pleasure of stating that but two residents of this city have voluntarily resigned their fellowship.

I think the Academy has every reason to be satisfied with the amount of scientific work which has been done during this time, as sixty-six papers of unusual merit and importance have been read on subjects pertaining to pathology, general medicine and surgery, therapeutics, and the various special subjects of obstetrics, gynecology, dermatology, laryngology, otology, and ophthalmology, and the reading of these papers has been followed by able discussions, which have attracted notice and been largely reprinted both in American and in European journals. I can repeat what I have before said on a former occasion, that these discussions have been very valuable, because they have called out our ablest and best men, known to be experts in the special subjects of the papers read, and they have given the results of their careful study and large experience. We have rarely been compelled to listen to platitudes or crude statements of facts already well known to every intelligent and educated man. I can say that we have never been compelled to listen to the flippant loquacity of garrulous pretensions and assumptions, but we have had new reasoning, new statements of facts, new therapeutical suggestions, worthy of consideration and trial. It has been my aim to bring out papers which would in due proportion mark the progress of all departments of medicine, and thus in turn to secure the interest and aid in the improvement of all our Fellows. It is with great regret that I have been compelled to decline many papers which I am sure would have been listened to with great interest, and would have been most valuable, and brought out excellent discussions, simply because the time had been previously assigned to other papers. The number which have been offered have been far greater than the number of evenings which are devoted to this purpose. In a few instances papers have been recommended by one of our sections to be read before the Academy, and papers, too, that it would have been most desirable that the Academy should have the credit of. But the authors have preferred to bring them before the profession through some other medium rather than wait for an evening that had not been previously promised to other writers. In a few instances I have been compelled to decline papers whose merit and value I could not question, for the reason that the subject was one which would interest but a very limited number, and it would be impossible to bring out any dis-

cussion upon them. Such papers would find an appropriate place in, and would be valuable contributions for, some of our medical journals. These matters have often caused much embarrassment and disappointment, not only to the writers of papers, but to myself, and I am certain they would have caused it to the Academy if it had been aware of the facts. To prevent their repetition, I will earnestly beg all who are preparing papers for the Academy to inform me by note as long a time as possible before they wish to read them.

(To be concluded.)

ABSTRACT OF THE CARTWRIGHT LECTURES ON THE RELATIONS OF MICRO-ORGANISMS TO DISEASE.

DELIVERED BEFORE THE ALUMNI ASSOCIATION OF THE COLLEGE OF PHYSICIANS AND SURGEONS, NEW YORK,

By WILLIAM T. BELFIELD, M. D.,
CHICAGO.

LECTURE I.

[The speaker was introduced by Dr. W. H. DRAPER, who remarked that the subject, "The Relations of Fungi to Disease," was one which certainly at the present time recommended itself to us as one of the most important for our consideration. It had so revolutionized our ideas of the pathology of many diseases, and our methods of treatment, that it was not possible to give the subject too much attention. The gentleman who had been appointed to deliver the Cartwright lectures on this occasion had had unusual facilities for acquiring practical experience in the study of the relation of the micro-parasites to disease; and he now took pleasure in introducing to the audience Dr. W. T. BELFIELD, of Chicago.]

Dr. BELFIELD opened his remarks by saying that in accepting this kind invitation to deliver the Cartwright Lectures he had, in compliance with the request of the Alumni Association, chosen this subject simply because of its intrinsic interest and importance, and also because there existed in the mind of the medical public in this country a divided opinion regarding it which seemed to him not to be warranted by the facts.

The speaker then referred to the inherent difficulties pertaining to the study of the subject under consideration; the necessity for extended facilities in pursuing investigations in the laboratory, the time and the expense necessarily involved, etc.—facts which, from the nature of our institutions, greatly limited original work in this direction in this country. In Europe, material aid was given original investigation of scientific subjects by the government. There had seemed to be a tendency on the part of the medical public in the United States to treat the subject under consideration as trivial or fanciful, and in general to ignore it. It was not his endeavor to present any original investigations, any theories or new views, but simply to state facts already established, and the deductions incident thereto, an effort which he was encouraged to undertake on account of some familiarity with the literature of the sub-

ject and a practical knowledge of the methods of manipulation.

Dr. Belfield then briefly referred to the history of the discovery and the study of the subject of bacteria, and said that even as early as 1675 bacteria had been observed. Fuchs had observed them in animals which had died in septic infection in 1848, and others had observed them in anthrax in 1849-'50. Pasteur, in his work on Fermentations, published in 1861, was the first to endeavor to establish a genetic relation between plants and diseases. At that time bacteria suddenly acquired an interest for the pathologist. The attention of the profession was drawn to the subject by the works of such authors as Meyerhofer, Cohn, Rindfleisch, Recklinghausen, and others, published from 1865 to 1867. Actuated by the investigations of Pasteur, Lister adopted certain methods in the treatment of disease, the clinical results of which led to a revolution in surgical methods, and gave new vigor to experimental pathology. He would consume no more time with an historical sketch, but would proceed at once with a review of the evidence upon which the subject rested.

The definition which Cohn had given of bacteria as early as 1875 was applicable at the present day, with slight modification: "Cells devoid of chlorophyll, spherical, oblong, or cylindrical, which reproduce themselves extensively by transverse division, and live either isolated or in families." To this was to be added the power of reproduction which was known to occur in several species. Many bacilli were also known to possess a thread-like projection from the extremity by means of which they were capable of motion in liquids. Nutrition and assimilation were carried on by a process of osmosis. This simplicity of structure had given rise to the discussion as to whether the bacilli belonged to the animal or to the vegetable kingdom. Our knowledge at present with regard to chemical reactions incident to their vital activity was very limited. An interesting fact respecting them was that the putrefaction of albuminous substances was incident to the vital activity of certain varieties. Their simplicity of organization explained their extensive distribution throughout nature. They were to be found in currents of air, in the dust carried by the wind, etc. Certain errors in manipulation and misinterpretations of facts, which were so liable to take place even with the greatest of care and most improved methods and facilities for investigation, would account for the serious mistake made by Pasteur and others in saying that bacteria were capable of spontaneous generation. There were some at the present day who were of opinion that they were capable of spontaneous generation, but, so far as evidence went, there was no reason to suppose that bacteria, like all other organisms, did not always proceed from pre-existing similar beings.

With regard to the nomenclature, unfortunately much confusion had arisen. Each investigator had been disposed to name each new variety according to his own individual fancy. The French school, following Pasteur, had in a loose manner made use of the terms vibrios, monads, torulaceæ, etc. Dr. Belfield thought that Cohn's classification was the fittest to survive, but it also would have to undergo

some amendments. According to this system, the bacteria were distinguished by form as micrococci, micro-bacteria, bacilli, and spirilla. Each of these forms was then described.

The following was given as a definition of a bacterium: A mass of matter of definite shape and size, possessing or not possessing motion, of a certain chemical composition, having the power of growth and reproduction. No mass of matter could be said to be bacteria unless it possessed these qualities. Certain of these qualities, as said before, could be determined by examination under the microscope, and there were certain qualities which became manifest only under the action of reagents. For instance, aniline colors distinguished bacteria from such bodies as fibrin threads, fat granules, etc. But many of these qualities might exist in other bodies than bacteria, and lead to serious errors in deductions or statements of facts on the part of the observer. Instances of this kind were related. But even the experienced mycologist could not determine with absolute certainty that a given body was one of the bacteria except by cultivation outside of the body, demonstrating its reproductive power.

But with this arose practical difficulties which it was not always possible to overcome. Many objects might come in contact with the particle under examination which might also contain bacteria, and it was necessary to liberate the particle from all adherent organisms. We might, however, observe the strictest rules in this direction, and yet be unable to say positively that our precautions were altogether efficient. Dr. Belfield then selected cases from the literature of the subject, going to show how mistakes which had been made in this direction had led to very erroneous conclusions.

Two ways had been chiefly adopted in the isolation of bacteria from the blood or tissues of the animal for examination. First, by infiltration through some porous substance, as paper. But the imperfection of this method was evident. The method of cultivation could be divided into three groups, the first and the earliest being the worst, namely, in flasks or tubes containing the nutrient liquid. The errors liable to and which had grown out of this method were referred to at some length, and consisted chiefly in the extreme liability, at any of the transfers, to the admixture of foreign matter with the original. Should other living organisms become mixed with the bacteria being experimented upon, that which multiplied fastest, other things being equal, would, after a few transfers, be the only one remaining.

(To be concluded.)

CHAMBERS'S WEEKLY MEDICAL REVIEW.—MESSRS. J. H. Chambers & Co., having purchased "The Chicago Medical Review"—semi-monthly—will hereafter issue it weekly, simultaneously at Chicago and St. Louis, under the name of "Chambers's Weekly Medical Review."

SOME weeks ago a druggist in Burslem, England, had carelessly served a customer with poison instead of magnesia. He summoned the bellman as soon as the mistake was discovered, and sent him about the streets warning the unknown purchaser not to use the deadly drug. This is a rather novel way of neutralizing personal error, as it may be called, but it was successful.—*Times*.

Original Communications.

THE OPPORTUNITIES FOR THE STUDY OF MEDICINE IN NEW YORK CITY AFTER GRADUATION.

BY D. B. ST. JOHN ROOSA, M. D., LL. D.

IN my opinion, the best opportunities for the continuation of the study of medicine after graduation are to be found in hospitals. A large hospital is better than a small one, for the young practitioner should, if possible, see a large number of cases, and become rapidly saturated, as it were, with experience.

When private practice is entered upon, there will usually be ample time for the careful and deliberate study of a few cases. The number of large hospitals is, however, limited, even in New York. Besides, to enter one, the graduate must pass an examination, one that is competitive and usually much severer than that which gave him his degree.

But a few months as a resident in a small hospital afford a larger experience, and give more opportunities for practical work, than does time spent in any other way. Making a rude estimate, it may be said that there are from one hundred to one hundred and fifty places of all kinds, in hospitals large and small, general and special, that are to be filled annually in New York. When we remember that from four to five hundred men are graduated every spring in our city, we see that, at the best, only about one man in four can get a place. I fear, however, that some of these places go a begging in our city, although those in Bellevue, New York, Roosevelt, Charity, St. Luke's, and a few others, are eagerly sought after. Indeed, great and special preparation is made for passing the difficult examinations that are a prerequisite to getting one of these places. The young men who can not get these desirable places should by no means abandon the idea of securing a hospital position. The position of a clinical assistant or dresser, and finally of a House Physician or House Surgeon, in one of the smallest hospitals in New York, is, in my opinion, better able to prepare a man for active general practice, than even a lucrative place as an assistant or junior partner to a very busy medical man.

Senior partners are usually too busy to give much attention to instructing their associates, and it is just where the senior has become rusty that the young doctor, fresh from a college, needs to fix and assimilate his knowledge. The attending surgeons and physicians of hospitals are usually on frank and cordial terms with the house staff. They have none of the stiffness that they may assume as college professors, and he must be a dull scholar who does not get very valuable notes on the cases in the wards from these gentlemen.

When the young doctor has assimilated the knowledge he has obtained in a college by a hospital course, he then appreciates the intuitive skill of a busy practitioner. He can then learn by looking on, while in turn his own resources add something to the joint stock of knowledge and experience. But if the recent graduate has already been in a hospital, or if, from one circumstance or another, he can not

enter one as a member of the house staff, what can he do? Still I say come to New York, or stay in New York. If you have a decent stock of preparatory knowledge, a great deal of industry, good health, indomitable will, and about four hundred dollars in cash, or available funds, you will be a much better prepared general practitioner in six months than the average of those whom I have known after they have been five years in the profession without post-graduate training. A list of all the medical facilities of New York—one comprising the colleges, under-graduate and post-graduate, dispensaries, hospitals, general and special—should first be made. You will find all this in the New York "Medical Register," although not compactly arranged. Then, at the most, three or four subjects should be selected, to which three or six months may be devoted. Suppose, for example, general medicine, diseases of the skin, and gynecology are selected. In these departments you may have a weekly clinical lecture by such men as Flint, Delafield, Loomis, and Leaming, by paying the matriculation fee at their colleges. Then, for twenty dollars, you may have private instruction at the Polyclinic or Post-Graduate School, with visits to the hospital or dispensary with your private instructor. In skin disease you may get Socratic, practical instruction by Sturgis, Bulkley, Fox, and others. In gynecology, Dawson and Mundé will give you instruction in private classes, as a part of their post-graduate courses, while you may go to the weekly clinics at the under-graduate colleges, held by Thomas, Polk, and Lusk.

From Addis Emmet may be had an occasional opportunity to see operations at the Woman's Hospital on presentation of your card. Thus I might go on. Diseases of the throat and nose, of the eye and ear—all have their hospitals, to which the recent graduate is welcome, if he will hang up his hat and sit down and not saunter about as if he were some distinguished visitor who has just dropped in for a half-hour. Private courses in the ophthalmoscope, the laryngoscope, otoscope, and microscope, are given in connection with the post-graduate and under-graduate schools and at the hospitals, at hours and times that can be readily ascertained, and for fees that are very small. At many of the dispensaries and hospitals the attending surgeons are always short-handed for clinical clerks and assistants. A man who will attend regularly for some two or three weeks, so as to get acquainted with the staff, and who will attach himself to one physician or surgeon, will soon find himself well appreciated, and actually installed as an assistant, without examination, with unlimited opportunities for studying and observing the effects of treatment upon diseases. If post-mortem examinations be what is desired, at Bellevue rare opportunities are given, while Satterthwaite, Peabody, and others give private instruction in normal and pathological anatomy. The dissecting-rooms of the colleges are also open to graduates, during the winter and spring, on payment of the fees. In a month or so of regular visiting to the hospitals, a hard-working and modest man will make acquaintances in his particular department of study, who will give him an occasional opportunity to see private operations, and to go to the various societies, public and private, and hear the discussions. If the recent gradu-

ate has but a few weeks, the post-graduate school and polyclinic will furnish all the opportunities he can use. If, however, he has months, these will not furnish all he can enjoy and profit by. The time has come, in our country, when even country villages and hamlets are critical as to the quality of their medical advice. A young man who has lounged about a physician's office for two or three summers, and spent but two short winter sessions at a medical college in a large city, will stand no chance by the side of one who has given three solid years to the earnest study of his profession in the college, and then added to that a number of months of practical work, where his responsibility is shared by an older head. The mere degree of M. D. has, fortunately, come to have slight significance. The medical schools of New York are becoming more and more accessible. When I say schools, I mean not only those strictly so called, but the hospitals and dispensaries, as well as the colleges. Directors and governors realize their responsibilities in the direction of opening them to students. Every year it becomes easier to get instruction. I would earnestly advise any recent graduate, no matter what branches of our science and art he wishes particularly to cultivate, to stop in New York before he goes to London, Paris, Berlin, or Vienna. From some experience in all of these cities, I think New York now offers to the English-speaking student advantages quite equal to those to be obtained in the old world. If, after graduation, a man can stay a year or two in hard work in New York, and then go abroad for a few additional months, he will, to my mind, have ideal opportunities. But better is it to stay here after graduation, if the two kinds of post-graduate instruction, that at home and that abroad, can not be obtained. There are master minds here as well as in the old world.

FROM GRADUATION TO PRACTICE.

By EDWARD BENNET BRONSON, M. D.,

PROFESSOR IN THE NEW YORK POLYCLINIC.

THE graduate in medicine beginning the practice of his profession directly after receiving his diploma finds himself in a position not unlike that of many a newly arrived traveler in foreign parts at his first essays to speak and understand the language of the country. The chances are that the traveler's sole knowledge of the tongue has been acquired in a limited series of "lessons" at home. With his own master he thought himself tolerably proficient, but abroad the inhabitants seem to talk the language in a different way; they have other voices; their expressions are peculiar; they make strange gestures; and utter their words so rapidly. The result is that, while the bewildered stranger catches here and there a familiar word or simple phrase, his diagnosis of the general meaning of what is said is apt to be very vague and confused.

The plight of the embryo practitioner is not much better. His mind is stored with excellent medical precepts, together with a fine assortment of correct prescriptions. He can discourse to his patient right learnedly, but, alas! like our traveler, he can talk better than he can understand. In his mental outfit are the keys to diagnoses of numberless diseases, but for the particular case in hand none of them ever

seem to fit. The cases which the young practitioner meets all appear to be anomalous ones. He recognizes as familiar certain features, certain symptoms, but then there are other symptoms that are entirely out of place and incongruous. The art of medical observation, the art of appreciating symptoms at their proper value, has not yet been acquired. The tyro is unduly concerned about "pathognomonic" symptoms, and is very prone to hasty generalizations—in a word, lacks practical experience. His three years' "curriculum" has afforded him more instruction than training, and it is only the combination of these two elements that makes a complete education. The training of practical observation and experience is necessary before his knowledge can profit him. Knowledge is power only when conjoined with wisdom. The studies of the medical student are so crowded with matters new and strange to him, they embrace subjects of such a varied character and so infinite in number, that the mind can afford but little activity to any faculty save that of memory. He emerges from the course with a vast collection of facts, but with very little individual judgment. His judgments are those of his professors; he scarcely dare make his prescriptions original, and his diagnoses are sure only when he meets the counterparts of cases he has been shown at the clinics. Alma Mater sets her young brood adrift to complete its evolution alone. She dubs the graduate "teacher of medicine," when yet he has the most to learn. Is it safe to trust this fledgling alone? He has his feathers, and much he may plume himself on them, but little he knows how they are to be used; he has yet to be taught to fly. The element of training is still lacking in his education. How is this to be obtained?

Without further instruction, the young graduate may adopt the independent course of beginning practice at once, trusting to time to remedy his defects. The objections to this course are that the experience, besides being acquired very slowly, is often warped by early prejudices that result from too partial observation, and impaired by careless methods of practice that are liable to become confirmed habits. The paucity of the material observed leads often to conclusions that a wider field and more friction with other observers would have shown plainly to be erroneous. Many succeed well in spite of these drawbacks; and, though it may be said of these practitioners, as of other self-made men, "It is better to be self-made than not made at all," it is none the less the duty of the physician to avail himself of every facility at his command to make his equipment for the intelligent practice of his art as thorough and complete as possible.

When the recent graduate has the opportunity of forming an association with an established physician of large practice, where his work is under the controlling influence of an older and more experienced head, his advantages are increased, but such an arrangement has also its disadvantages. The control which at first serves as a valuable check and guidance becomes in time a great hindrance to independence of opinion. The habit of referring every question to his superior checks the evolution of his own judgment, and tends to render him a mere reflection of the opinions of one man. Moreover, these opinions are not likely to be uni-

formly enlightened on all subjects. Every physician of position and experience has his strong points, but upon others his authority is less reliable. Indeed, few are free from more or less faulty prejudices. It is, perhaps, especially important that the young physician who assumes the relation of assistant or junior partner to an older practitioner should already have formed a broad mental ground-work of sound, catholic opinions.

With regard to the uses of the dispensary system in our large cities there is much to criticise. The material afforded for study is vast and of incalculable value, but, unfortunately, the manner in which it is generally used is most wasteful, and in too large a degree profitless. A young physician, often entirely inexperienced, is placed in charge of a class averaging from, say, ten to fifty or more new patients a day. There is a certain consciousness of official dignity in disposing of so many cases within the allotted hour. His patients are from an inferior class, that he looks upon with unavoidable disdain, and regards as simply so much food for science—and, were this food digested as it should be, more good would result both to science and to the patient. As it is, the material is bolted as rapidly as possible, occasionally pausing for a “snap” diagnosis of an “interesting case,” but with little appreciation of the advantages that are being squandered. While the conscience of the attending physician can ordinarily be trusted to deal in tolerably good faith with the patients he sees, he has neither time nor usually sufficient incentive to make such careful investigations as should be made. The physician is too isolated, too irresponsible, and slipshod work is too much the rule. The average dispensary class by no means affords that sort of training to the young graduate which he especially needs.

In a large hospital the system is vastly better. The “House” acts as the teacher of his assistants, and his work in turn is under the supervision of the attending physician. The members of the staff are in intimate association with one another, and their intercourse affords friction which keeps up enthusiasm in the work and tends to raise its standard. The experience gained by the *interne* of such a hospital is unexcelled by any method of medical training. But it has its limits. The term of service is a short one, and, though the cases observed embrace a wide range of diseases, there are many classes of affections which are rarely met with except in certain special institutions. Moreover, the conditions of the service often confine the *interne* to a certain department of the hospital, where he is exclusively concerned with a particular set of diseases. The arrangement is doubtless a wise one, and is attended with good results, so far as thoroughness in the work is concerned, but it nevertheless leaves the young physician at the end of his term of service still but partially prepared for all the exigencies of a general practice. The training he has received enables him to acquire what remains with comparative ease. In a good measure he has acquired the scientific habit, the art of weighing evidence as evinced by symptoms, the habit of recording observations, and, moreover, considerable expertness in making a diagnosis. His mental receptivity also is greatly increased. He can better digest new facts and estimate the value of new methods and theories. It is at this

period that the medical novitiate has generally, when practicable, sought the advantages of foreign instruction.

Until recently there has been little or no provision in this country for the pursuit of such studies as are demanded at this period of the medical education. Abroad, at hospitals and polyclinics were courses especially designed for the practitioner—courses of short duration, several of which could be pursued together, and in which the matriculant was brought in contact with an abundance of classified material which he was enabled to study under the guidance of experienced specialists. The necessity of seeking these advantages abroad is, fortunately for the great majority of young physicians, becoming every year less. In the past few years much has been done to supply the requirements of practical clinical instruction which recent graduates demand. A number of classes in various special departments have been established in different institutions, and have uniformly been well attended. The two schools which have been opened in this city within the last few months, with the especial object of supplying the demand referred to, demonstrated the fact at once that such a demand was urgent. There is reason to believe that, in the future, schools of this character will form an important accessory of medical education. The plan of instruction that before had been followed in special institutions has in these schools been systematized and made more comprehensive. Many who seek instruction have already seen something of practice, and what they require is not didactic teaching but practical demonstration. They wish to see exemplified upon patients the proper methods of diagnosis and treatment by those whom long and special study has qualified to speak with a degree of authority.

Such are the facilities afforded the medical graduate to perfect his training for the practice of his profession. A word with regard to his *animus*—to the motives which should actuate him in this preparatory work. Unfortunately, in the pursuit of our profession, there are two important motives which are liable to conflict. One is scientific, the other commercial. But there need be no conflict; the two motives should be made coincident. For the practitioner an undue predominance of either is a loss. The physician wholly engrossed in the scientific aspects of his profession will have indifferent success as a practitioner. He may gain *κῶδος*, but few shekels. The doctor who practices with an eye single to his fee is false to his oath and false to his patients. In the early studies of the young physician, the commercial spirit is especially noxious. It belittles his professional aims and lowers the standard of his preparatory work. The desire for prosperity is a legitimate incentive so long as it does not predominate. The greater the interest in his work, the more likely that it will be effective and fruitful. But the prevailing motive should be the desire to acquire competence in his art; all else should be subordinate. A competence in his pocket will follow, and it will be seen how commercial aims may coincide with the legitimate requirements of science. But interest of some kind he must have that is live and active. The spirit that actuates him must be a thoroughly earnest one, or little will be accomplished. The most productive work is always that

which is directed to ends in which the mind takes an absorbing interest. This interest in the medical man may be greatly augmented by judicious attention to his natural predilections in the choice of particular departments of study.

After the elementary or fundamental part of his medical education is completed, the physician soon finds his natural tastes and aptitudes tending spontaneously toward certain special lines of medical investigation. By properly heeding these intimations he will not only add a spark of enthusiasm to his study, but, by giving his work a more definite direction, he will improve its quality. The attempt to cover the whole field of medicine uniformly will only result in superficiality. The aim should be, while striving to acquire proficiency in all departments, to attain excellence in one. The best work in medicine, without doubt, is being done in the "specialties." The specialist has a peculiar enthusiasm in his adopted department of study, and, moreover, the minuter his study the wider the field that expands before him, and the more it impels him onward. The farther he goes the better he appreciates the fact that the *consensus* of all the medical sciences is such that to excel in one branch of medicine he must also be proficient in all its sister branches. There are *artisans* in special medicine to whom the term "mere specialist" justly applies, but the specialist has no true title to the name who is not also a good physician.

It is not, however, the writer's intention to advise every young doctor to become a specialist. What he would urge is that each choose, sooner or later, some particular line of study in which he shall aim at an especially high standard of excellence, and from which, as a good point of departure, he can better attack the whole field. A wall intervenes between him and success. It is wiser to first effect a breach at some one point than to attempt to batter it all down at once. The fowler who singles out a particular bird in a flock will be surer of his game than he who makes a random shot at all. It is not designed that other departments of study shall be neglected, but that at some point there shall be a glow in his work; and the fire of enthusiasm once kindled will soon inflame the whole.

THE ARMY MEDICAL SERVICE.

By MORRIS J. ASCH, M. D.,
LATE BREVET-MAJOR, UNITED STATES ARMY.

To the young man who has finished his prescribed course of medical study, and is ready to take his place in the ranks of the workers in the profession, there must always elapse, except in a few fortunate instances, a certain number of years before he can make the seed sown during his years of studious toil bring forth pecuniary fruit. The widespread disinclination of the laity to trust the health of themselves or families to the "young doctor" is too painful a fact to advert to here, but is sufficiently common to make it often desirable that the youthful aspirant for medical success should tarry in Jericho until his beard be grown.

To such, or to those desiring to embark in a permanent career, the medical service of the United States army offers a most desirable opening. Composed of men carefully

selected from competing candidates, its medical corps compares favorably with that of any other nation, and to be a member of the body which has enriched medical literature with the works of an Otis and a Woodward is to possess an official recognition of professional capacity exceeding that conferred by the diploma of any of our colleges.

The medical corps of the United States army is composed of a Surgeon-general, with the rank of brigadier-general; an assistant surgeon-general, with the rank of colonel; a chief medical purveyor, with the rank of colonel; four surgeons, with the rank of colonel; ten surgeons, with the rank of lieutenant-colonel; fifty surgeons, with the rank of major, and one hundred and twenty-five assistant surgeons. On being appointed, the medical officer receives the commission of assistant surgeon, with the rank and pay of a first lieutenant mounted. After three years he becomes captain, with corresponding pay, which rank he holds until a vacancy promotes him to a full surgeon, with the rank of major. The grades of lieutenant-colonel and colonel are likewise attained by seniority, while the surgeon-general and assistant surgeon-general are chosen by selection from the whole corps.

The army of the United States being distributed in numerous small posts over a vast expanse of territory, its medical officers are usually without assistants. It therefore requires capable and self-reliant men, able to meet every emergency and assume any responsibility. The examination is necessarily rigid, and of the many applicants for appointment, but a small proportion are accepted, and these owe their commissions not to favoritism or political influence, but to their ability to meet the requirements of an impartial Board of Examiners, not vexatiously exacting, but scrupulously careful to insure that each successful candidate reaches the standard it has set. This standard is high, as it should be, and requires of the candidate, in addition to a thorough knowledge of his profession, a liberal education. Of two candidates possessing equal medical knowledge, preference would be given to the one who in addition gave evidence of the largest stock of acquirements. This is from no capricious desire to be exacting, but because the duties of the United States medical officer require him to possess qualifications of the highest order. Often called on to make reports on the capacity of new territories, a knowledge of the collateral sciences is indispensable. The examination is largely written, and includes a practical history of the knowledge of the candidate. The compensation in return for the required talent is liberal, if we compare it with the amount likely to be earned during the first years of professional life, while, as years roll on, if the pay is small as contrasted with the incomes of successful practitioners in large cities, we must remember that it is permanent, and that illness brings no diminution of it; while at the expiration of thirty years of service, or at sixty-two years of age, the officer is placed on the retired list with seventy-five per cent. of his highest pay. On entering the service, the assistant surgeon receives the pay of a first lieutenant of cavalry, \$1,500 per annum; at the expiration of three years, \$2,000; a major receives \$2,400, a lieutenant-colonel \$3,000, and a colonel \$3,500. Every five years the officer receives an

addition of ten per cent. to his pay, which continues until the increase reaches forty per cent., when it becomes permanent. Besides this, he is furnished with quarters corresponding to his rank, and with forage for his horses, if in actual use.

On courts-martial and on occasions of ceremony the medical officer takes position with other officers of the army, according to his rank and grade.

The army of the United States being distributed to every part of the country, an officer may find infinite variety in his posts of duty. He may be stationed anywhere in the vast region—in the forts on the Atlantic or Pacific seaboard, on the plains of the South-west, or on the slopes of the rugged Rocky Mountain region. Sometimes his station may be at a division or department headquarters in one of the great cities, where he has an opportunity once more to compare himself with his professional brethren.

But, wherever the army surgeon may be stationed, he will be sure to gain a fund of information relative to the medical topography of the country that must prove invaluable, if he desires to continue his professional career in civil life. His position is always a pleasant one, for the medical corps is held in high esteem by the line officers of the army, and every opportunity is always afforded by commanding officers for the study of the flora and fauna of the country when the routine of daily duty gives sufficient leisure. The Medical Department is liberal in its provision of medical books and periodicals. Good microscopes and other means of scientific observation are furnished the different posts; and the military surgeon, though lonely, has no excuse for not being as well informed on the latest medical literature as his brother of the city. No better training in self-reliance and breadth of intellectual vision can be had than in our little army; the experience acquired there will stand in good stead when the officer returns to civil life. If he elects to remain in the service, an honorable position and an income sufficient for desires not too ambitious are insured to him.

POST-GRADUATE STUDY IN EUROPE.

By WILLIAM C. AYRES, M. D.

In advising a person who has just graduated at a school of medicine as to what would be the best course for him to pursue in a trip to Europe for the purpose of continuing his studies, what we have to say depends entirely upon the length of time which he intends to remain abroad. If there is no hurry, and two or three years can be taken for it, there are points which would be of the greatest value to know.

First of all, as to the expense. Germany is a cheap country to live in, and is also, I think, by far the best one to learn medicine in. It ought not to cost more than from forty to fifty dollars a month, with everything included. I know of a young man who lived in quite an expensive place in Germany, viz., Heidelberg, for twenty-five dollars a month for three years.

But before getting to Germany, and, in fact, before leaving this side, it is decidedly advisable to go to some

respectable broker, and have all the money you carry changed into English money, since this is at a premium all over Europe, and any one is glad to take it, whereas it is often not the case with other money.

Now as to the method of getting there. We all have our own ideas about transatlantic travel; but, after we have landed, one thing is well worth consideration. In England and on the Continent never take a *first-class* railroad ticket, for the second-class one gives you just as much comfort in traveling, and costs just two thirds as much as the first. It is an old saying in Germany that no one ever travels first-class except princes, green Americans, and fools.

Of course, in order to get as much out of a trip to the old country as possible, it is necessary that we should know the language of the people among whom we expect to reside. And, since Germany is by far the best place to study medicine in, we must either be already acquainted with the German language, or we must acquire a certain familiarity with it as soon as possible; and, in order to acquire this, there are many things to be observed. First of all, it must be firmly resolved not to speak any more English than is absolutely necessary; therefore, when once in Germany, avoid all American and English people, as they will certainly keep you from learning German.

Again, it is desirable to take lessons in German; but be particular to select a teacher who does not speak English; *and on all occasions speak German, whether you make mistakes or not.* It is really remarkable the facility with which the inhabitants learn to understand a foreigner when he tries to tell them something in their own language, even if he does not use a single word correctly. The theatre is also a fine place to get the ear accustomed to the sounds of the words, and especially since on the stage they speak the best German, and pronounce it most distinctly.

If one has some time to spend abroad, by all means he should go to some *small university town* like Heidelberg or Würzburg, Jena or Giessen, and start with *histology* and *pathology*, since in these places there are not so many novel things to distract, and also the professors and their assistants will devote more time to a single person; they are all more or less fond of Americans, especially if they find them to be diligent. As soon as they see that you wish to learn, they will go to any length to teach you. I remember that, when in Heidelberg, I had looked but a few times through a microscope and could hardly tell an air-bubble from a red blood corpuscle. Professor Arnold, the pathologist, was quite amused at first, but would sometimes sit for two hours by my side and pour pathology into me as if with a spoon.

Spend the whole morning in the laboratory of pathology, for there you can also learn histology; after dinner, in the laboratory for physiology, and you will certainly be surprised at the amount of science you will absorb and the rapidity with which you will learn the language.

I had a friend who went to Jena and avoided all Americans for one year, then came to Heidelberg and passed his examination, obtaining the first grade in his Ph. D. in one year and a half. This I remark only to show how the language can be learned by avoiding all English-speaking people, throwing off false modesty, and speaking German

continually, whether you make mistakes or not, as before observed.

It would be well after the first semester (term) to attend the lectures and some of the clinics, but never miss a post-mortem when it can be helped, for they make them in a different way from what we do generally.

After a year and a half or two years, you may go to a larger town, and the selection will depend upon the special branch which you are desirous of paying attention to. Vienna is the best for obstetrics, diseases of women and children, and skin diseases, and also possibly for ophthalmology and otology, but for the latter branches Heidelberg is very fine. Moos, for the ear, is the very best man, since he does not have many students, and will devote the whole time to one man if necessary. Becker has the finest eye clinic in Europe, and is also very kind to students.

For surgery, Berlin, Vienna, or Munich is the best, but the last not so good as the others.

For pathology, no one is so renowned as Virchow in Berlin, but for this branch all of the universities are good. For microscopical pathology, the same may be said about the universities, but the preference might be given to Würzburg, Heidelberg, and Strassburg.

It is far more difficult to advise any one who only intends to spend six months or one year in Europe, but, nevertheless, as a general rule, what has been said about a longer period may be applied here also; with the exception that it will be almost impossible, in so short a time, to acquire enough of the language to understand a lecture or appreciate the fine points that any teacher may make. In this case I would spend at least half of the time, say six months (if one year is at disposal), in the laboratories of *pathology* above all, and then in those of *physiology*.

About these there can also be said a good deal which may be useful. For instance, if a person understands the language he has a great advantage, but if he does not, then I think that he should select some place where he can use English, as in Heidelberg.

Professor J. Arnold, who directs the laboratory of pathology, speaks English quite well, and is perfectly willing to speak it. His assistant, also, Professor Thoma, speaks English very fluently, and is fond of speaking it. So here is a rare chance.

Also in the laboratory of physiology is Professor Kühne, who speaks English, French, and German almost with the same fluency. Again, his assistant, Professor Ewald, has as good a command of our language as we ever find in a foreigner. Therefore, when there is only a year, Heidelberg is certainly the place in which to spend six months of it. There is another point to be considered, viz.: if it be possible, let this be in the spring and summer, for during those seasons it is one of the most beautiful places on earth, but the winter makes it very disagreeable.

After a time has been spent with the microscope in a smaller town, of course it is then advisable to go to the largest clinics to be had, where as much as possible can be seen. For this Berlin and Vienna are the places, but the latter has the preference over the former for many reasons.

Then, also, it will be winter, and that part of Europe is then much pleasanter than the latitude of Berlin. If you intend to spend the winter in Vienna, you may go directly from Heidelberg to Switzerland for the midsummer, when the universities are closed, and be near your winter home without loss of time or money.

If any one is already more familiar with French than he is with German, and desires to acquaint himself with the French school of medicine rather than the German, he may go to France. In this case it would also be best to spend the first part of his time in one of the smaller towns. France, however, is not like Germany in having such a multitude of smaller places of learning; but as for the larger cities, we all know there is but one—Paris. In that city the hospital advantages are of the finest, and much time could be advantageously spent there. I am, however, inclined to think that the teaching in France is not quite so systematic and thorough as in Germany, since they are more apt to indulge in “glittering generalities” than to confine themselves to pure and absolute science. However, as a happy mean, where we find all the plodding perseverance of German system, and the fascinations of the French character, we may select Strassburg; there we find both a French and a German population, and may learn both the languages at the same time. But neither Strassburg German nor Strassburg French is of the purest.

A word about Great Britain. As to hospital advantages, there is no city in the world where they are greater than in London, but the same objections hold good for the teaching in England that we have found in the case of France. Pathology, however, can be studied to the greatest advantage in Edinburgh, whereas for physiology no place can be better than the laboratory of Professor Foster in Cambridge. The English surgeons are very brilliant, as we all know, and we may devote much time, if we wish, in England to the branches of surgery and physiology, and also much to pathology in Scotland.

The particular advantages of the larger cities we may say are: *Vienna*, obstetrics, diseases of women and children, surgery, skin diseases, ophthalmology, otology, and hospital practice; *Berlin*, pathology, surgery, chemistry, physiology, ophthalmology, and hospital practice; *Paris*, surgery, physiology, ophthalmology, and hospital practice; *London*, surgery and hospital practice; *Cambridge*, physiology; and *Edinburgh*, surgery and pathology.

Correspondence.

LETTER FROM WASHINGTON.

WASHINGTON, February 1, 1883.

WHILE making some inquiries at the office of the Surgeon-General of the navy recently as to the next Medical Examining Board (a subject to which I will revert later on), I was reminded that the medical corps of the navy has been manifesting, within the last two or three years, a rather uncommon activity in professional and other scientific work. A number of enterprises, in departments of research not hitherto much explored by that body, have been set on foot, and in some directions results have

already been reached of sufficient importance to suggest to me the idea of devoting this letter to some brief notes of the same.

I suppose that you have noticed the fact that the Public Health Association has adopted the naval "Museum of Hygiene" as its depository for specimens and models germane to its purposes, and that the American Medical Association took somewhat similar action at its last meeting. Possibly, too, you may have seen some of the photo-micrographs of organisms and crystalline bodies from the air, and of the bacterial forms found in the blood and secretions of certain forms of disease, and in potable waters, which have been published in the Surgeon-General's Reports, or have been distributed to the medical societies. It takes a long time, however, for the fruits of original research, carried on under official auspices, to struggle forth from the limbo of official reports into the open air of general professional knowledge; and it is therefore not strange that the visitor to the Naval Medical Building should find that it contains much that is both new and interesting.

The building is a large three-story brick house, or rather two houses thrown into one, standing on the south-east corner of Eighteenth and G Streets, scarcely more than a block away from the department. The second floor is occupied by the dispensary and the offices of the surgeons detailed to attend the families of the numerous officers stationed in this city. This department is well equipped with consulting- and waiting-rooms, a separate apartment for examinations with the laryngoscope, ophthalmoscope, and the like, and a very complete outfit of electro-therapeutic apparatus, including a large Fletcher's table, supplied by forty gravity cells, Byrne's and the Galvano-Faradic Company's batteries, and many appliances for special treatment, among which I notice a handsome Foster's gynecological table. Surgeon A. A. Hoehling and Passed Assistant-Surgeon T. M. Rixey comprise the medical staff, and, since the benefits of free medical treatment are shared by the families of all officers stationed in Washington, they can not be said to enjoy a sinecure.

In the back building are two large rooms on the second floor, one of which is devoted to microscopic research, and the other, by the use of light-tight shutters and a heliostat, is converted into a camera for photo-micrography. This work has grown from small beginnings during the last two years until now all of the photographic work called for, even to the preparation of the plates themselves, is done in the building and by naval medical officers. Beneath these rooms, in what were the kitchens of the house, is a good working chemical laboratory, sufficiently equipped for any ordinary analysis, and kept very constantly occupied. In the last Surgeon-General's Report, for example, it is stated that for the year preceding the number of analyses completed and reported on was 267, of which 172 were quantitative, 67 qualitative, and 28 partly quantitative, besides an extended series of analyses of atmospheric air; 150 microscopic specimens were mounted and preserved, and 82 photo-micrographs were made and printed. For the year just past I understand that the results are not only numerically greater, but cover a wider range, including studies of organisms found in sewer emanations, of ground air, of disease-germs as manifested in scarlatina, diphtheria, small-pox, typhoid fever, and anthrax, and several extended chemical analyses for other bureaus than that of medicine and surgery. The laboratory, microscopic, and photographic work are at present done by Passed Assistant-Surgeon Griffith, under the general supervision of Medical Director J. M. Browne, who is in charge of the museum with its subordinate branches.

The first of these which the visitor meets with, on entering what were the reception parlors of the house in its hospitable days, is the library, occupied also as an office by Dr. Browne and his two assistants, Drs. Streets and Henneberger. Here are

eighty periodicals, conveniently arranged in a case which stands in the middle of an enormous reading- and writing-table, and alcove cases containing between three and four thousand volumes. The library is loaded down by a surprisingly small amount of dead weight in the way of useless or unavailable books. It is particularly strong in fine editions of the older classics, and of full sets of standard periodicals, most of which have been added during the last two years. Upon the walls are plans and elevations of famous hospitals, among which I recall examples at Leipzig, Lima, and the British hospital-ship Victor Emmanuel, at Hong-Kong. In cases are set up complete sets of the apparatus for physiological research described and figured in Burdon Sanderson's "Hand-Book for the Physiological Laboratory," a Browning's model spectroscope, model electric lamp, etc., etc. Upon a stand in the library proper is a fine model of the Hicks United States Army General Hospital, presented by the Army Medical Museum. Out of doors, upon a large wooden platform, are set up specimens of every form and size of drain-tile, presented by the National Museum. In the long room once used as a ball-room, beyond the library, things were in a less orderly condition at the time of my visit. One set of workmen was at work upon the frames for exhibition of specimens, which are modeled after those adopted by the National Museum; another set was completing water and sewer connections for a very full exhibition of the different systems of house sewerage and drainage, including traps, soil-pipes, closets, ventilating-pipes, and all the mysterious *armamentarium* of the plumber. In one corner stands a sectional model of one of the burial-caskets sent to the Lena River for the remains of poor De Long's party; in another there are models of the various ambulances, wheeled stretchers, and other military devices for the transportation of the wounded, presented by the Medical Department of the Army. Slung up against the ceiling are various forms of cot for lowering wounded men from the spar deck during engagements at sea. In the middle of the room is an enormous sectional model of a hospital-ship, showing all the decks and the hold; in another place a model of a ship's fore-castle, showing the sick-bay. The walls are well covered with framed sectional drawings of drainage systems, specimens of wall coverings, fabrics useful in the construction of hospitals, and plans of hospitals and hospital-ships.

Without going further with what threatens to degenerate into a catalogue of specimens, I may say that this young museum, scarcely two months advanced from its beginning, is already outgrowing its available space, and is receiving accessions at a rate which shows how fully all manufacturers and students interested in its purposes appreciate the advantages of such an exhibition. Even in its present stage, I know of no place in this country where an inquiring medical man can get so full and intelligible information as to the various systems of drainage, for example, in so compact and accessible a form.

Another evidence of the activity of the medical corps of the navy is to be found in the Naval Medical Society, which meets on the first Thursday in each month in the library, and which has just published the first number of its Transactions. I have requested that a copy be sent to you, the subject of discussion being one of great interest to all persons in the military service—viz., The Line of Duty, or, in other words, the responsibility of the medical officer in the determination of claims to pension.

Passing to another part of the city, the inquiring visitor finds that one of the furthest advanced and most complete exhibits in the new National Museum is the *materia medica* collection, under the charge of Surgeon James M. Flint, United States navy, detailed for the purpose by the Surgeon-General. Here are to be found the *materia medica* of every pharmacopœia on earth, including, for example, those of China and Siam. Not

only the preparations are shown, but the original root, bark, or leaf-drawings and pressed specimens of the characteristic parts of plants, mineral waters, even objects used superstitiously, as amulets and charms, such as horse-chestnuts against rheumatism, and the like. Connected with the exhibit proper there are in course of preparation careful collations of the synonymy of different pharmacopœias, of the differences between compounds of similar names in the official as well as the official preparations of different countries, and a series of descriptive labels, which are truly marvels of accurate and laborious condensation. One striking feature of this exhibit consists in the display of mineral waters. Around a litre-jar of Friedrichshall water, for example, are grouped a number of tall phials containing, each, one of the salts which make up the mineral water, and the exact quantity of the salt contained in one litre of the water. The bottles are all of uniform height, but of varying diameter, arranged in cases of the standard pattern, which run all through the museum. The educational value of such a collection, and of its accompanying publications, not only to medical men who have to practice in foreign countries, but to students and lecturers on *materia medica* as well, must be apparent without argument.

It would seem that, with the advantages of a library well stocked with periodicals and books of reference, of laboratory facilities, the apparatus at the dispensary, the National Museum exhibits, and a medical society of its own, the medical corps of the navy ought to be a body in which its members should take pride, and which should present unusual inducements to successful graduates who are seeking opportunities for advancement. There is, however, unfortunately, another side to the shield, and, while the corps is undeniably doing something tangible for the advancement of science within its own lines of action, it seems to be unable to do much for itself. Just at this time there is a particularly widespread sense of dissatisfaction among medical officers, growing out of the evidence afforded by recent debates in Congress that a large branch of the service to which they belong desires strongly to reduce their official standing and to diminish their pay. It has been seriously proposed in Congress to muster out of the service the two highest grades of medical officers, without compensation for the many years spent in the lower grades, or for the peculiar character of the service required of them, which has deprived them of the opportunities for establishing the connections on shore necessary to success in any business. It has been proposed also to dispense with a medical corps altogether, shipping a surgeon for the cruise, as is done in the merchant service, and discharging him at its termination. The proposition to reduce the pay of staff officers was defeated by but a narrow majority, and is very likely to come up again hereafter.

Considering these facts, and, furthermore, that, for some years after entering, the assistant surgeon is now compelled to live in the steerage, without separate quarters, or opportunities for study, I doubt whether it is altogether judicious to urge the few graduates of each year who are competent to pass the naval medical examinations to compete for positions in a service in which the duties are onerous, the official rank doubtful at best, and the rewards not only meager, but likely to be withheld just at the time when advancing years have exhausted the energies of youth and the capacity for beginning life over again. Every one who is interested in medical education must look with regret upon any deterioration in the value of the few rewards which now serve to stimulate the zeal and enthusiasm of students to special efforts, since we can not yet boast that the standard of the "pass" examination is as high as it might and should be. But, although the impulse to lend a helping hand to a worthy but failing body of our brethren is doubtless as strong

in the profession as it was twelve or fourteen years ago, when the medical societies throughout the country spoke to this text with no uncertain sound, I doubt whether something more than assistance from without will not be necessary in this case. If neither the navy as a whole, nor Congress which controls it, can see the advantage of attracting and retaining within its body the best medical ability obtainable, there certainly seems to the average outsider to be something radically "crass" in the body itself; a sort of mental strabismus that must be cured by operation before anything like correct vision can be hoped for.

If, however, there be still among your younger readers those who, rather than bear the ills they have, will fly to others that they know not of, I will say that I learned, on my visit of inquiry to the Surgeon-General's office, that a medical examining board would meet at Philadelphia on the 1st of March, and that there were now two vacancies in the medical corps of the navy, the last appropriation bill having reduced the number by ten. Permits to appear before the board are easily obtained, the success of the candidate depending much more upon the sort of examination he passes than upon the kind of introduction he brings with him. By the act of 1877 the rule has been so far changed that the rank of the successful candidate is permanently fixed by his first examination, and is no longer, as heretofore, subject to change by his success when examined for his first promotion. Under the rule which had prevailed for some thirty or forty years prior to this act, every assistant surgeon had a chance to better himself, relatively to others of his year, by diligent study during his service in that grade, and the arrangement certainly seems to have been a judicious one, as tending to stimulate continued industry after the first examination. As it is now, I should say that the candidate who knows some medical officer, and can so get an idea of the scope and character of the examination, will have a decided advantage over him who goes up without knowing anything about what is before him.

But I dare say you have had quite enough of the navy for one occasion, and I have left myself no room for anything else, the subject being of especial interest to doctors here at this time for reasons already touched upon.

LETTER FROM PHILADELPHIA.

PHILADELPHIA, February 3, 1883.

I HARDLY know what to reply to your queries as to the chances for success of a young graduate in this city. I suppose that it is much like other large places in being superabundantly supplied with medical men, still, for the right sort of man, there is always room. There are two chief plans adopted by most aspirants to fame and practice here, which, with certain subsidiary means necessarily varying with the individual and his surroundings, usually prove more or less successful. Probably the easiest is first to secure a position as interne in one of our hospitals. Now, as we have five large ones where these positions are filled solely on the recommendation of the medical board after examination, two still larger—the chief surgical hospitals—where personal influence alone avails, and a third where meritorious examination nominally, but political influence really, alone secures appointment, it must be hard luck, indeed, if the persevering aspirant can not "get placed." As the numbers vary from two to a dozen or more, with substitutes, unexpired terms, etc., no man need fail of an appointment if he will wait long enough. His time as interne having expired, he must next settle near his old hospital—if possible, in one of our quickly growing neighborhoods—obtain as soon as he can an assistant physicianship or surgeonsip at his hospital, and ingratiate him-

self with some member of the staff, whereby odd patients, night cases, etherizations, and "sitting-up cases"—at twenty-five dollars a night—may fall to his lot. The more scientific plan is to do everything as hereinbefore described except the choice of locality, which must be decidedly "swell." The aspirant must then proceed to write himself into practice, attach himself as clinical assistant, demonstrator of anatomy, surgery, histology, or something of that sort, in one of our three medical schools; or, after being in Europe *for a few months*, come back to set all his old instructors right. This may seem jest, but I mean it for earnest, having seen it done over and over again. If a really meritorious man, he is soon taken up by some of our prominent men, who get him to work for them as clinical clerk, or in some other capacity, either paying him a small salary or sending him practice. This is the history of many of our rising men. I should have added, of course, that he must join one of our many societies, preferably either the County Society or the Pathological, or both, where, by actively debating and reading papers, I can recall a dozen solid reputations made within a few years. Nothing beyond residence in the county for one year, and the recommendation of three members, need precede election in the former, while the same requisites, less the residence, will render any one eligible for election to the latter.

Most ambitious men either take some of the numerous private post-graduate courses, or the excellent ones at the University, or of the new Post-Graduate School here. Quizzing, reporting lectures, writing reviews, acting as temporary traveling attendants upon fashionable patients, enable some of the more fortunate aspirants to keep the wolf from the door. There are innumerable out-patient departments here which occupy many men; and the old Philadelphia Dispensary, with its various district physicians, who attend the patients at their homes, has been the means in the past of starting some of our best men in a paying practice. As copyists, amanuenses, proof-readers, etc., certain men manage to eke out their means to no contemptible extent.

To any man who desires to do good scientific work, to lay the foundation of, and indeed build up, a solid scientific reputation, I know of no place better to come to than this, believing, as I do, that nowhere in this country can he find better or as good facilities. Unless, however, he has means or backing, or, in lieu of these, indomitable pluck, this overcrowded city is not the place to settle in. With any of the above-named qualifications, preferably both of the former, he will probably succeed by the means I have pointed out, although it will take, in most instances, a long time. If I had my choice, I should certainly advise a young man rather to settle in one of our growing smaller cities, such as Chester.

I omitted saying that, although a few years ago almost unknown, now the older practitioners are beginning to have regular partners in the shape of assistants, their offices being together, or, at least, they practically have such, by invariably sending their patients to certain of their *protégés*, and directing them—the patients—to send for a certain physician in an emergency, or after a certain hour of the day. This opens up other chances for a certain number of superior men.

And now I will close my rather rambling letter with the promise to try to give in my next a true account of the pros and cons of the recent "body-snatching" affair, which as yet remains unsettled. Only one side has been heard, while Dr. Forbes has received, to put it mildly, scant justice at the hands of both the medical as well as the secular press. This may seem like promising something which can hardly be called news, but I think that the legal aspects of the matter will hardly be settled before I write again, and I wish to set your readers right about the Anatomy Act and the supply of material here, con-

cerning both of which you seem to be under some misapprehension, judging from some paragraphs that I read in one of your January numbers.

LETTER FROM BALTIMORE.

BALTIMORE, January 31, 1883.

WITHIN the past five years Baltimore has made marked progress in the facilities which she offers to the medical student in the direction of a higher medical education. From a position subordinate to New York, Philadelphia, and Boston as a medical center, she now fairly rivals these important medical communities, and it is only a question of a few years when the advantage may be claimed in her favor. There are at present four medical schools in active operation here, and the fifth, the Medical Department of the Johns Hopkins University, will most probably be at work within the next five years. These schools are the University of Maryland, Medical Department, one of the oldest and most reputable institutions in this country; the College of Physicians and Surgeons, a vigorous and wide-awake school of some ten years' growth; the Baltimore Medical College, an institution as yet in its first dentition; and the Woman's Medical College, recently organized, but vigorous and progressive. Independent of the strictly medical schools, there are two dental institutions and the College of Pharmacy. They have matriculated at their several schools during the present winter 590 medical students, about 103 dental students, and 87 students of pharmacy, or a total of 780, engaged in the study of medicine and its cognate branches. These large classes of students are mainly drawn to this city by the excellent opportunities which they have presented to them for didactic and clinical instruction. It may be fairly claimed that the gentlemen engaged in teaching in the medical schools of this city are as able and conscientious teachers as fill similar chairs in the various medical schools throughout the country. The course of instruction is about as thorough and satisfactory as that offered by similar unendowed medical schools elsewhere. Attached to the two leading schools are well-conducted hospitals, which offer excellent clinical advantages, and, in connection with large outdoor departments, furnish a variety and abundance of clinical material, which is fully and carefully utilized. This fact has added materially to the strength of medical teaching here. Clinical instruction is appreciated and insisted upon, and the material is presented to the student in its most practical form.

To the graduate in medicine, Baltimore presents numerous advantages which in the near future will invite a large number of men seeking a high medical education. To the graduates of the city schools the positions of resident and interne are available at the University Hospital, City Hospital, and Bay View Asylum (City Almshouse), while graduates from other cities may take advantage of the laboratories of the Johns Hopkins University for special work in chemistry, biology, and physiology. The graduate may pursue any special line of study with advantage. He is admitted to the daily clinics at the several schools where special instruction is given, or, if disposed, may visit such excellent institutions as the Presbyterian Charity Eye and Ear Hospital, the Baltimore Eye, Ear, and Throat Charity Hospital, the Union Protestant and Church Home Infirmary, and similar hospitals.

The objective point of interest to the student in search of a higher education centers at the Johns Hopkins University. No institution in this country is more courteous and considerate in its regard for the student than the Hopkins, and no institution is more admirable in its system of instruction, in its facilities for imparting knowledge, and in its purposes, than the one mentioned. The chemical, physiological, and biological departments of the Hopkins have been organized with a thoroughness and

comprehensiveness unsurpassed by any school in the old world, and without a rival in the new.

The original work carried on in these departments is marked for its accuracy and finish, and for the valuable additions it has made to scientific knowledge. The student of the Hopkins enjoys great freedom and latitude in his researches, and valuable aid in his efforts. He has placed at his command an abundance of material for experimentation, the use of the most recent and improved appliances, and such careful instruction that he can rarely fail to produce something original and valuable. The vast resources of these laboratories are open to the student for a comparatively trivial sum. Nowhere can so much be obtained for so little outlay. To one who shows marked fitness for original research and study there is open to successful effort the position of Fellow with its annuity of five hundred dollars, or the Ph. D. with its implied preferment.

The work at the Hopkins in higher medical education has had a salutary effect upon medical interests in Baltimore. The outlook here is most encouraging, and the day is not far distant when the entire profession will experience the benefit of this large and liberal culture in scientific thought and effort.

Now almost completed is the Johns Hopkins Hospital, with its ample endowment, admirable location, and superior accommodations for the sick. This hospital will be opened to patients within two years' time. It will have a capacity of about three hundred beds, yet, to accommodate this number of patients, its wards and administration buildings cover an area of eleven acres of ground. It is built upon the pavilion plan, and after the most recent and approved system of hospital construction. When completed, it will be a palatial home for the sick, wherein will be found in rich abundance all that art and science can contribute to the alleviation of human suffering. The Hopkins Hospital will offer the very best advantages for clinical and pathological instruction, and, when associated with that system of training to be inaugurated by the Hopkins School of Medicine, medical education in Baltimore will receive an impress of thoroughness and reliability of the highest order. The advanced student will here find such opportunities for thorough training as will meet his far-reaching wants. The profession in Baltimore contemplates with pride the early inauguration of this higher work in medical education. Already it has felt the first stimulus of the new system, and insensibly it is molding itself to the changed relations which these associations bring. There has been a decided revival of activity and effort in scientific work. As a result, medical interests here are more aroused, organization is more thorough, the professional pulse beats with quicker and stronger impulse. Less than a decade ago there were but two feeble medical societies in the city. To-day four active and growing medical associations occupy the field, and contribute a useful part in advancing the claims of legitimate medicine. Any member of the profession in good standing and a resident of the city is eligible to membership in any or all of these societies. The Clinical Society, with a present membership of over 140, admits any physician residing in the State, while the Academy of Medicine levies a special tax in the form of an acceptable thesis upon all applicants. The recent graduate in medicine can obtain admission to any one or to all of these societies, and he may reap a decided advantage from the very practical and able discussions which prevail.

A movement is now on foot to establish a post-graduate school and a polyclinic in Baltimore. It is claimed for the promoters of this scheme that such an institution will meet a need in this medical community, and that it will at once secure a large complement of students. The gentlemen active in this movement seem to be in earnest, and it is possible that success

will ultimately reward their efforts. It is, however, maintained by others that no real need exists here for this character of post-graduate instruction. It is held that the Hopkins school, with its splendid facilities for special work, will present such advantages to students as will impoverish smaller interests seeking to cultivate the clinical field. Several years must elapse before the Hopkins school will be able to offer clinical instruction, and, in the mean time, the polyclinic may receive a permanent establishment.

The close proximity of Baltimore to Washington is of decided advantage to the student of advanced medicine. Within an hour's time he may be under the roof of the Library of the Surgeon-General's Office, or traversing the halls of the Army Medical Museum or Smithsonian Institution. The vast collection of scientific literature and material at the Capital is very nearly as accessible to the resident of Baltimore as to one living in the District. This fact, taken in connection with the general advantages which this city is beginning to offer to students, will add materially to the influences already at work in favor of advanced medical instruction.

LETTER FROM BOSTON.

Boston, February 14, 1883.

THE establishment and promising success of the Post-Graduate School, and the Polyclinic Courses of Instruction, in New York, is a matter of general interest throughout the country, and may lead to inquiry as to what similar advantages exist in our own neighborhood. Eleven years ago, Harvard made the first change in medical instruction by establishing the graded, or, as it was called, the "new system" of medical education, and, although it was predicted that it would be a failure, the result has been the contrary.

When this had been proved a success, the graduates' courses were established—in surgery, clinical medicine, obstetrics, and the various special branches. The fees were fixed at a comparatively low rate, and many new graduates and older practitioners availed themselves of these advantages.

One inducement was that graduates from other colleges, attending a full year's course and passing a satisfactory examination, could obtain the Harvard degree, and a number, who from various reasons were unable to attend a full three years' course at Harvard, graduated at provincial institutions, and finished off in this graduates' course. The system has continued in force, and, with a large number of professors and instructors, Harvard thus has an under-graduate and post-graduate course under one management. As they are arranged, one can take the full course, or confine himself to one subject.

Instruction in general medicine and surgery is given at the Massachusetts General and the City Hospital, and at the Boston Dispensary.

Histology, physiology, medical chemistry, and pathological anatomy may be studied in the various laboratories, under skillful instructors, while other special branches are distributed as follows: Clinical obstetrics finds its material in the Boston Lying-in Hospital, and in the districts of the Boston Dispensary; many of the confinements that would ordinarily come under the care of the district physician being transferred to the assistant professor of obstetrics, who sends advanced students to attend the patients, and, as a degree is not given till a student has attended three cases of confinement, and made written reports thereon, it is evident that a considerable supply is required to meet the demand.

The course in operative midwifery is conducted by Assistant Professor W. L. Richardson. When possible, operations are performed at the Lying-in Hospital in presence of sections of

the class. At the school all the operations are demonstrated upon the cadaver.

Those desirous of paying attention to dermatology and laryngoscopy can be accommodated at the out-patient departments of the hospital, and, also, special students in these studies may obtain private instruction from the same sources, and at the dispensary. Ten years ago a student at Harvard rarely saw a uterine examination made; now the study of gynecology can be advantageously pursued—the clinics of the dispensary and the Free Hospital for Women being the sources from which the material is furnished; and, in addition to these, the Assistant Professor of Gynecology, Dr. W. H. Baker, intends to establish a clinic at the Medical School, when the new building is occupied.

A large city always gives good opportunities for the study of venereal diseases. Material for this class of cases is found not only in the out-patient departments of the hospitals, and at the dispensary, where there is a special clinic for such patients, but also at the Naval and the Marine hospitals at Chelsea.

Diseases of the eye and ear may be studied to advantage at the Massachusetts Charitable Eye and Ear Infirmary, at the Boston City Hospital, and at the out-patient department of the Massachusetts General.

Six years ago the office of coroner was abolished in this State, and medical examiners were appointed in their place, and the duties of the old office were divided, the examiners attending to the medical part, and a trial justice looking after the legalities.

There are two medical examiners for Suffolk County, both of whom are instructors at the Medical School; and, as many autopsies are made and demonstrated by them in the presence of the class, it will be seen that the opportunities for the study of forensic medicine are good.

Thus, all the special and general branches of medicine may be pursued by any physician in the graduates' course.

In New York, all the house officers in the various hospitals are, I believe, graduates; here, on the contrary, no one who has received a degree is allowed to apply as an interne, save in one exception, to be mentioned further on.

At the Massachusetts General Hospital, junior students are appointed to serve as assistants in the various out-patient departments, while senior students are appointed to serve as House Physicians or House Surgeons, they being called medical or surgical house pupils.

At the City Hospital, a competitive examination is held every six months, and six house officers are appointed, for a service of eighteen months—six months as externes, after which they are medical, surgical, or ophthalmic internes, as the case may be. The service is so arranged that a man has a chance of serving in each department.

In the Lying-in Hospital the term of service is six months—three months as junior, and then three months as senior House Physician, and under-graduates are alone accepted.

At the Children's Hospital there are three appointments—two internes, a medical and surgical, and one externe.

At the Carney Hospital two house officers are appointed, but their being graduates is not considered an obstacle. One serves as House Physician, the other as House Surgeon.

In the Massachusetts General and the city hospitals the internes are allowed to graduate before their term of service has ended.

So much for the direct neighborhood of Boston. The only other hospitals in New England connected with medical education are those at Portland, Maine, and Burlington, Vermont. At the former, two house officers are appointed each year—one medical and one surgical—and those selected for the office have generally taken the course at Bowdoin and the Portland School

for Medical Instruction. At the latter, in the Mary Fletcher Hospital, two are also appointed. Here the selection is made from those who have completed their studies at the medical department of the University of Vermont. In both instances under-graduates are selected.

The Rhode Island Hospital, at Providence, is not connected with any medical school. Three assistants are appointed each year, and the service is both pleasant and instructive.

Concerning appointments upon the visiting staff of our hospitals there is nothing to be said that will give encouragement to a young graduate coming to Boston. The opportunities are few and the applicants are numerous, and one who has not served as an interne stands very little chance. The motto is, "The best man for the place"; but the "best man" generally proves to be the one who has the most influence.

Some one once asked Governor Dix what his rule was in appointing professional men to official positions; he replied: "I sift the candidates down to two, and, if their professional standing is equal, I give it to the one who has the most political influence." I think a similar rule applies to hospital appointments here.

To a man who wishes to make a special study of the diseases of the eye and ear, I know of no place better than the Massachusetts Charitable Eye and Ear Infirmary. The clinic is large, and the staff able; and, besides one interne, there are externe appointments, and a beginner, while waiting for practice, can spend his mornings at the infirmary, and either drop the appointment as patients come to his office, or, if he means to take up the specialty, continue till a vacancy in the staff makes room for his promotion.

At the Boston Dispensary any one can apply for a district, a position which has a salary of \$200 a year; and, even when one can not obtain the appointment, he can get the chance to act as substitute in a district, or a room, and thus be kept busy till his own time comes. Societies with us are sufficiently numerous.

The State is divided into districts, corresponding in general to the various counties, and the Massachusetts Medical Society consists of the district societies, the appropriate one of which every regular physician is expected to join. To obtain membership, one has to pass an examination more or less stringent, according to the Board of Censors who examine. In the Suffolk district, which consists of the city of Boston proper, the examination is partly written, partly oral, and is comparatively severe, while in some districts it is treated too much as a matter of form.

In so large a society as the Suffolk district, the regular meetings, which now occur bi-monthly, are too crowded for comfort, so various sections are formed—of clinical medicine, surgery, obstetrics, etc.—meeting at shorter intervals, and members attend those that interest them the most, and in this manner much earnest work is accomplished.

The Boston Society of Medical Observation was founded through the endeavors of Dr. H. I. Bowditch, now the Nestor of the society, after the manner of the Observation Society of Paris. The meetings are held twice a month, except during the summer, and each member in turn reports a case, which serves as the basis for discussion and criticism, in which it is intended that the utmost frankness and courteous freedom should prevail. The number of "associate" members who hold the meetings is not limited. A part of their assessments goes to aid in the supply of medical journals, which circulate among forty so-called "active" members, who pay a higher assessment. All the leading American, English, French, and German medical periodicals are taken, and pass weekly from member to member in turn, after which they are deposited in the medical library. In order to become a member, one must be a member of the Massachusetts Medical Society, and have been in practice a year.

He is then proposed by two members and balloted for. This may be considered more especially the young men's society.

The Boston Society for Medical Improvement is on somewhat the same plan, and meets twice a month. Here papers are read and discussed, and more general subjects are presented. The membership, now about one hundred, is unlimited, and consists rather of older members of the profession, and is recruited more or less from the members of the Observation Society. The Obstetrical Society is limited to forty members. The meetings are held once a month, at the houses of the members, and, after the presentation of papers, and their discussion, a supper is provided. The host has the privilege of inviting friends, members of the profession.

There are various other societies, or clubs, as they should be called, where the membership is small and the meetings private, and, though much good work is done in them, they have more social than professional interest.

The question of most vital importance that a young man asks himself is, "Where shall I practice?" In the country or a manufacturing town a man can get a living practice quicker than in the city. If, however, a man has some capital to start on, I should say, "Try the city." In a place like Boston, a man, if he will attend to business, will find something to do. Let him remember the maxim of Dr. Rush, of Philadelphia: "Keep to your office and your office will keep you." I do not say that fame or fortune will fall into his grasp; but, if he is patient and persistent, responds with alacrity to every call, night or day, without asking questions as to who is to pay, he will soon have enough to do. If a young man without means should ask me what part of the city to select as a good starting-ground, I should advise him to go and settle in the midst of the poor people. There are many who never go to the dispensary and out-patient departments, but go to some physician in the neighborhood, and, if they mean to pay at all, they pay cash at the time.

Some time ago I visited a physician at the North End, the Five Points of Boston, to consult with him concerning a patient in a medico-legal case, and during the short time I was there half a dozen people came in, each one of whom paid a small fee, from half a dollar upward, and the physician told me that was a fair example of the way his evenings were spent. A neighbor of his, also a physician, said to me this winter, when I asked him why he did not move: "Doctor, I can not afford it; I am making too much money; in five years more I can do as I like, but now I must stay where I am."

If a man has money and can live for five years in one place, in the better parts of the city, he will, at the end of that time, find that he has work to do, and is paying his way; but to a poor man I would say, Go where you will find the maximum amount of work and the minimum of pay.

The practice of medicine is not a royal road to wealth. No young man can expect any lucrative appointment in life insurance, or the like, till he has been fully tried; but I should advise any young man to obtain the appointment as examiner to some lodge, council, chapter, or whatever it may be called, of some of the various Mutual Benefit Insurance organizations with which the country is flooded, for, by so doing, he will make acquaintances in his professional capacity, and the more people he knows the more chance for patients.

F.

LETTER FROM ST. LOUIS.

St. Louis, January 26, 1888.

In accordance with your request, I have made some investigations with reference to the character and extent of the opportunities that are available for recent medical graduates in St. Louis.

There are few appointments that are open to young graduates here which are profitable in the way of pecuniary emoluments, although there are positions which afford excellent opportunities for study and practice.

In the City Hospital there are six to eight assistant physicians appointed by the Health Commissioner, and who receive no compensation other than their board, room, and washing. At the Female Hospital there are three assistants, who also receive only their maintenance, except one, who acts as druggist, and receives a salary of thirty-five dollars a month.

Two physicians at the Poor House receive fifty dollars a month apiece, while one of the two assistants at the Insane Asylum receives sixty and the other fifty dollars a month.

At the City Dispensary there are three physicians. The dispensary physician receives a salary of one hundred dollars a month, and the two assistants each receive seventy-five dollars a month.

The Clerk of the Board of Health is a physician, and has a salary of one hundred and fifty dollars a month.

At times when small-pox is prevailing, physicians are appointed to attend the small-pox hospital on a salary of one hundred dollars a month.

These are all the positions that are ordinarily open to recent graduates so far as the city government is concerned, though I might mention that the present incumbent of the office of Superintendent of the Female Hospital is a young man who graduated less than three years ago. That office pays twenty-two hundred dollars annual salary, with maintenance of the officer and his family and a horse. Medical members of the Board of Health, two in number, receive a salary of five hundred dollars a year each, but appointments to this board have never been made from among the young men of the profession.

Each of the medical colleges here has a dispensary connected with it, and affords opportunities to a number of its recent graduates to gain practical experience by taking charge of the dispensary service at stated times. Aside from this and the facilities afforded by the post-graduate courses, and the College for Medical Practitioners, there are no special advantages for recent graduates here.

None of the hospitals here, except those mentioned, all of which are public institutions, have any resident physicians, and there are no organized arrangements for out-patient work in any form except as mentioned in connection with the dispensaries.

TREPANNING IN PREHISTORIC TIMES.—One of the most curious traces of primitive belief which have come down to us is found in the trepanned skulls which have been discovered in several caves and dolmens of France belonging to the earlier portion of the new stone age. Dr. Paul Broca has devoted a pamphlet to the description of these trepanned skulls and the discussion of their significance. The fact is certain that a great number of these skulls were trepanned during lifetime, probably in infancy and early youth, and that they healed up again, the subject of the operation surviving it for many years. M. Broca supposes this trepanning to have constituted a sacred rite of some sort. For we find that the skulls of these very persons who had undergone the operation in their lifetime were after death subjected again to the same operation. A number of small discs were cut from them in such a way that each disc contained a portion of the cicatrized edge made by the original trepanning. These discs were used as amulets by living persons. But the skull thus treated was in its turn provided with one of these talismanic discs in place of those which had been cut from itself. From this custom M. Broca has argued a belief in the survival of the dead man, and supposed that the disc was placed with the skull to serve as a kind of viaticum into another world.—*The Saturday Review*.

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THE YOUNG GRADUATE AND HIS NEEDS.

It is the well-known custom of several medical journals to devote one of their early autumn numbers each year to the special needs of medical students and of such as intend to enter upon the study of medicine, and thereby much good is doubtless accomplished. It has seemed to us, however, that those who have just ceased to be medical students (in the ordinary acceptance of the term, although it is to be hoped that they will never cease to be students in reality) stand quite as much in need of all possible information bearing upon their prospects, and the paths that are open before them, as they did when they first entered upon their course of medical study. Indeed, it would be difficult to name a position in life where more depends upon the way one shapes his acts than in that occupied by the man who finds himself the possessor of a diploma in medicine—that “license to study,” as it was humorously termed by the late Professor Robert Watts. It is on this account that we have taken pains to prepare this “College Commencement Number” of the journal, that name being given to it because this is about the time of the year at which the annual commencement takes place in most of the medical colleges of this country.

It is not our purpose in this article to lecture the young graduate in regard to what his particular necessities are, or how they are to be met; we refer him, as to those matters, to the contributed articles that it has been our good fortune to obtain for this number of the journal. It is rather our aim to encourage him, and to assist him to react from the rude shocks that will be put upon him by the world into which he launches forth. He will be told over and over again, for instance, that, however sound and comprehensive his theoretical knowledge may be, he has still to be clothed with the armor of practical experience before he can become a safe man to depend upon. Of course, there is a great deal of force in this, and the young physician will readily confess it to himself; but let him not carry his self-criticism so far as to think that the greater part of the work is yet before him, and that he has accomplished comparatively nothing. Such is not the case by any means; he has not achieved all, but he has mastered the greater part, not the lesser. There can be no more egregious error than to esteem mere experience above well-arranged theoretical knowledge. Let two men roam the woods in quest of wild flowers—one of them an illiterate rustic, but familiar with every plant that grows in those parts; the other a man who has studied botany systematically, but has never before been beyond the sight of bricks and mortar. Straightway they come upon a flower that rouses the latter's curiosity. He asks its name. His companion, with an air of

superiority, glibly ejaculates the local name of the plant—but what a name! In the great majority of instances it is utterly meaningless, and the fellow who gives it with so much importance can tell little or nothing else about the plant; whereas the man of science, although so inexperienced as never to have beheld the thing before, will, in the course of a few minutes, roll out so much information about it that the rustic will speedily come to the conclusion that he has been quizzed. So it is in all departments of knowledge, medicine as well as anything else. Your “old, experienced practitioner” will jog along through the ordinary run of cases of disease without the slightest mental uneasiness for his own part, and with perfect satisfaction to his patrons, while his neighbor, just out of college, will lie awake o' nights cudgeling his brains to get at the bottom of cases of the same sort; but let an unusual case arise, and the old doctor will be utterly nonplussed, simply from never having seen its like before, while the young man will bring his theoretical knowledge to bear upon the case, and with such telling effect that the knotty question will be how to enlighten the old gentleman without offending him.

Let not the young graduate think, then, that he has done with “book learning,” and that henceforth he must devote himself to a laborious accumulation of precedents in his own experience. Let him rather keep on with his systematic study. We take it for granted that he will keep on with his reading, but in that reading let him not always be on the look out for points in practice, devices fit only for mere artisans; let him keep himself *au courant* not only of new facts, but of new views as well. Facts are good things to have, but it is not well to be prostrated under a pile of them; it is better to master them, to estimate them, to make them serviceable, by analysis and critical methods of thought. None are so apt to be led away by theory as those to whom theories are unfamiliar. Let our young practitioner take heart, then, and not be too much cast down by the thought of his own shortcomings.

THE HOSPITAL COURSE.

No man can be said to have prepared himself properly for a creditable career in medicine unless he adds some practical training, under competent supervision, to the learning he has acquired in the college course. Rarely will any other form of such training be found fully to take the place of a term of service on the house staff of a general hospital. We would, therefore, beyond all things else, urge the young graduate to leave no stone unturned to secure such a service. Even an opportunity to form a business connection with an established practitioner should not be allowed to stand in the way, for any man who is judged worthy of such an association at a time when he has barely emerged from the medical college is most assuredly the very one whom a hospital course will most develop, and to a certainty he is the very one who can afford to give up the glittering bauble of the present, and rely with well-grounded confidence on the incomparable advantage that such a training will bring him in the course of a few months. Too many men suffer all other considerations to be overshadowed by the reflec-

tion that they have spent a good deal of time and money in acquiring the right to practice, and by the consequent conviction that they ought to begin earning a living as soon as possible. This is a grave error. In the long run, nothing is gained by beginning practice at an early age; one will achieve competence quite as soon by starting upon his actual work at the age of thirty as by setting out at the age of twenty-five. Time is not lost, therefore, but put out at interest, so to speak, by devoting it to the completion of one's education.

We do not mean to say by any means that the hospital course is absolutely essential to success in practice, for we are quite aware that our profession includes many men of deserved eminence who in their early years were compelled to forego the great advantage it confers; but we do say, and that without the slightest hesitation, that, of two men equally well prepared in other respects, he who has seen hospital service will tread a path comparatively smooth, while the other will have to wage a wearying warfare with the deficiencies that it is the precise result of such service to do away with.

What is the charm by virtue of which the hospital course does all this for a man? The fact that it gives him the best "graded course" possible, under the guidance of the best practitioners with whom he could by any means be thrown. We will state, in general terms, what it is. Having passed his hospital examination, the young man enters upon the duties of a Junior Assistant, or Junior "Walker." If his service is on the medical side of the house, but little is generally required of him in this grade: he makes the daily rounds with the House Physician, and again with the Attending Physician, drinking in *savoir faire* from both; when not thus engaged, he superintends the details of medication, especially of external applications, applies cups, leeches, and the like, passes the catheter, and does such other minor manipulations as may be thought a little too much for the nurse and rather beneath the dignity of the Senior; he also copies the latter's histories of cases into the record books. For the time being, he is a "general utility man"; but the familiarity with details he thus picks up is wonderful, and he really comes to be very "knowing." Become a Senior, his leading duty is to elicit and note down the patients' histories, and on occasions he figures as "House" *pro tem*. When he actually becomes "House," he bears the immediate responsibility in the management of the cases; aided only by the Attending Physician's daily visit, he has the entire direction of the treatment. He thus acquires a confidence that never deserts him. On the surgical side the gradation is much the same, *mutatis mutandis*.

It will be seen that by degrees the young man advances from a position of no responsibility to speak of to one demanding and begetting the utmost self-reliance. In most, if not all, of our hospitals in New York the candidate for a position on the house staff of a hospital must first have passed his examination for the doctorate; in some cities, as we understand, this is not the case. It seems to us that the former system is by all odds the better one; it insures that all the medical officers of the hospital shall be "qualified" practitioners, and it allows the

young men to devote all their energy to the actual work before them, unhampered by the perfunctory systematic study of books that an impending examination really obliges them to undertake.

Something is to be said in regard to the choice between various hospitals. In the first place, we would advise a general rather than a special hospital. It need not be a large one, for too large a service requires so much sheer work in its performance that thoroughness of observation is apt to be neglected. The field afforded by a special hospital is of great value, no doubt, but, if possible, a course should first be taken in an institution where the practice includes the whole range of medicine and surgery. Least of all would we advise the young graduate to take a position in a lunatic asylum, but, for that matter, there is not much likelihood of his being able to get one. Psychiatric is so very special in its scope that it does little toward preparing a man for general practice; and, on the other hand, good service can scarcely be rendered in a lunatic asylum by those who have not had considerable training in a wider field.

We can not close without a word to those modest men who hastily conclude that a hospital career is beyond their reach. They can not all attain to it, to be sure, for hospitals are few; but any man who is fit for such an appointment can usually secure it in the end. Some of our best men have failed at the first trial, and afterward been rewarded with success. Above all, let our readers free themselves from the fear of favoritism. With very few exceptions, our hospitals are open to the best men, no matter whence they come or where they got their degree. At any rate, it is no disgrace to fail in the attempt, and they often succeed who enter the contest with but faint hope. In another part of this issue of the journal we give the leading details in regard to a number of the hospitals of New York, embracing information that we can vouch for as authentic. The statements there given have been prepared with great care, and we trust that some will thus be encouraged to try for a hospital course who otherwise might have felt themselves incapable of succeeding.

ALMA MATER.

Of all impersonal attachments, there are few indeed that surpass in depth or in permanence the sentiment of reverent regard cherished by the doctor in medicine for the institution to which he owes his degree. As an undergraduate, he may have idled away an unconscionable proportion of the time nominally spent under the tutelage of alma mater, he may have scoffed at what it pleased him to call "dry" in the pabulum she set before him, over and over again he may have voted her learned professors a set of bores, daily he may have reviled the benches she provided for him and his associates, and he may have chafed beyond all reason under the prolonged drudgery of the curriculum; but, once she has bestowed upon him the coveted parchment, he feels a revulsion comparable to that which prompts an unwilling mother to gaze in ecstasy upon her newborn babe.

✎ The tie so suddenly engendered never breaks; alma mater

is not to be dethroned. Let one of her children venture to slight her by taking an *ad eundem* degree; she need be at no pains to resent it, for the prudential reasons that he constantly finds himself pleading in an apologetic way are but so many witnesses to the truth of the old saw, *qui s'excuse s'accuse*. And indeed he feels that he has need to accuse himself. This very feeling avenges her and draws the bond tighter that binds him to her. Let him attain, in his own estimation, to some claim to distinction at her hands which she most ruthlessly declines to grant; he may feel galled, he may speak brave words of rebellion, but he can not break with her at heart. He may even forsake medicine, put on the livery of another mistress, and prate proudly of having thrown physic to the dogs; but he can not deny to himself, however jauntily he may disport himself among men, that her grasp is upon him still, or that it is one of love, not of coercion.

All this marks a bright spot in our tarnished nature; it lifts us over many a bog in which we should otherwise flounder hopelessly. The reign of alma mater is beneficent; she grants far more than she exacts, or than we can possibly render. How, then, shall we best do what little in us lies to give back some small portion of the debt we owe her? By so working in the service of that art she has bidden us follow that her labor with our successors may be the lighter; by so acquitting ourselves before our fellow-men that they may never taunt her with our misdeeds; by being always so true to her and to ourselves that she may never hesitate to say of us *hæc mea ornamenta sunt*.

ALUMNI ASSOCIATIONS.

ONE of the most practical turns that a man's love for alma mater can take is that of interesting himself in the association of her alumni. In the case of several of our leading colleges these associations have shown themselves not only promotive of the continuance of social relations between their members, but also highly conducive to the prosperity of the college and to the advancement of professional interests in general. Perhaps the most conspicuous example of this usefulness is to be found in the case of the Alumni Association of the College of Physicians and Surgeons of New York. Its organization is very carefully and prudently managed, and it has succeeded in acquiring a certain status with the faculty, essentially advisory, indeed, but none the less influential. It has set about accumulating a fund for the endowment of a chair of pathological anatomy; it has established a physiological laboratory, which, with some assistance from the faculty, it has maintained in a good working state for several years past; for many years now it has offered an annual prize of about five hundred dollars for the best essay on any medical subject; and, above all, it has provided an annual course of lectures—the Cartwright lectures, open to the whole profession. Two such courses have already been given—the first by Professor Bartholow, of Philadelphia, and the second by Professor Dalton, of the college faculty, and the third course, by Dr. Belfield, of Chicago, is now in progress.

The alumni of the Jefferson Medical College, of Philadelphia, seem to have devoted their energies more particularly to sustaining a journal, the "College and Clinical Record," a monthly publication that well represents the men who have interested themselves in its production, and no doubt tends powerfully to keep up an *esprit du corps* among them.

Of course, to accomplish such work as has been done in New York and Philadelphia, the alumni must be numerous. Consequently the younger colleges, and those seated in smaller communities, can scarcely be expected to achieve anything very striking through the agency of their alumni associations; but, even in the least pretentious of all the colleges, something can be done, or at least the foundation can be laid for good work in the future. It is, therefore, by all means desirable that such organizations should be formed in the case of every college, and that the alumni (or alumnae, as the case may be) should support them zealously.

SPECIAL PRACTICE.

ONE of the most fatal errors that recent graduates are prone to fall into is that of attempting the practice of a specialty at the outset of their career. The idea is apt to find its way into their minds that the immediate adoption of a specialty is more likely to lead speedily to prosperity than the miscellaneous work involved in general practice. No notion could be more pernicious. Medicine can not be learned in parts, one to the exclusion of another; all its branches so interlace that their practical as well as their theoretical study must go hand in hand. We do not decry legitimate specialism, for we believe that medicine is more advanced by its special practitioners than by those who divide their forces in the vain attempt to achieve distinction throughout the whole range of the art; but we do deprecate, and that most earnestly, the resort to a specialty without good and sufficient reason in each individual instance. We speak, of course, of the practical branches; there is no objection to a man's devoting all his energies to one of the subsidiary branches—pathology, physiology, or anatomy—so far as we know.

In comparison with the great body of physicians, there are very few real specialists, excluding those who give themselves the name for prudential reasons; and of that small number the great majority are men who, far from setting out deliberately at the very start as specialists, fell into special practice rather from the gradual development of a particular aptitude, from the accident of opportunity, or even from such a fortuitous circumstance as the fact that they found themselves gradually bound by non-medical engagements of a sort to preclude general practice.

No man can become a good specialist until he has spent a number of years in the practice of general medicine. He may acquire special manipulative skill, but that is not medicine; he may master a special literature, but that does not make him learned. We have known men with both these accomplishments make a pitiable show in an assemblage of physicians. Not only should a considerable amount of general practice precede the adoption of a specialty, but, even after entering upon a

special career, general medicine should not be given up wholly. Pure specialists advance the special branches to which they are attached, but it is those specialists who do not lose sight of the broad domain of medical practice that advance the art of medicine as a whole. By all means, then, let the adoption of a specialty come, if it must come at all, as the result of development, and not as a gratification of fancy.

THE MATERIAL OUTFIT.

WITH all the natural acumen a man may possess, and with all the education he may have fortified himself with, there are certain material appliances without which it is vain to attempt the practice of medicine at the present day. No one man needs them all; some need more of them, some fewer. In general terms, these appliances may be divided into instruments, materials for dressings, and more or less of a stock of medicines.

Of all of them, he whose lot is cast in the country will require more at the outset than his city *confrère*, for the latter, being near the sources of supply, may forego the acquisition of the greater number until he actually has occasion to employ them, whereas the country practitioner must be *nunquam non paratus*. There can be no question, however, but that both are apt to imagine at the start that it is well to provide themselves with an imposing array of instruments, and the like, most of which will never be of any more use to them than the show-bottles in an apothecary's window.

Discretion comes into play very decidedly in the selection of such appliances as the physician needs to have in his possession. There are certain articles of every-day use that can not be omitted, of course—the thermometer, the hypodermic syringe, the pocket-case of minor instruments, a spirit-lamp, a specific-gravity bulb, a few test-tubes, and the more ordinary reagents for testing urine. These must be had; the question is, how to select them. The first piece of advice we have to give is, do not buy articles that are cheap. Nothing is sold much below the ordinary price unless there is some factor in the case that will afterward account for the low price, to the disgust of the purchaser. It would be well for the graduate to buy the usual necessary outfit before leaving the city in which he has pursued his college course, and it will be of advantage if he can get some older practitioner's advice in its selection. If he happens to have taken his degree at a country college, it would be better to write to some acquaintance in the city, rather than correspond directly with the dealer, for the latter, with the best intentions possible, is quite likely to misunderstand his customer's wishes. Much disappointment would often be saved by paying a physician for the trouble of making the selection.

As a general thing, it is not well to invest in novelties. Often an instrument that seems extremely well adapted for the purpose it is intended to serve will turn out to be of little or no practical use. Appliances made of soft rubber had better not be obtained until they are really wanted for use, as that material is apt to deteriorate rapidly.

In regard to medicines, it is mostly the country practitioner that needs to keep them on hand, but even him we should advise not to invest heavily in them, unless the field of his practice is quite remote from an apothecary's. For the few articles that are indispensable, the elegant preparations now furnished by the manufacturing pharmacists will almost suffice, and the physician will not find himself loaded down with bulky and perishable liquids. Among these preparations, the tablets, tablet triturates, etc., as devised by Dr. Fuller, seem to us admirable. Blank sugar-of-milk tablets are to be had, and can be

impregnated with almost any liquid drug of which the dose is small. So convenient are these preparations, indeed, that many city practitioners are getting more and more into the habit of keeping them. In the matter of drugs, too, it is well to avoid novelties, except under unusual circumstances. We would repeat, also, what we took occasion to remark in regard to instruments, that it is poor economy to buy cheap articles. They are always dear at any price.

THE MEDICAL CORPS OF THE NAVY.

CONCERNING the medical service in the navy, we have little to add to what our Washington correspondent writes in the letter published in this number of the journal. Assistant Surgeons enter the service with the "relative" rank of Ensign or Master, corresponding to the rank reached by graduates (of the line) from the Naval Academy who had entered that institution six years earlier. At present they all enter as Ensigns. The six years' constructive service is allowed by law, to compensate for the time spent in preliminary education by the medical officer, and is supposed to correspond to the time spent by the line officer as cadet and midshipman.

On entering the service, the Assistant Surgeon is paid at the rate of \$1,700 a year when at sea, \$1,400 when on shore duty, and \$1,000 when on leave or waiting orders. After three years' service, two of which must be at sea (or, as now ruled, in a receiving-ship), the Assistant Surgeon is entitled to examination for promotion, and, if successful, becomes a Passed Assistant Surgeon, with the relative rank of Master or Lieutenant, and is paid \$2,000, \$1,800, or \$1,500, according as he is at sea, on shore duty, or on leave. After five years, his pay is increased to \$2,200, \$2,000, and \$1,700. Since 1846 it had been the law that the second examination, like the first, should be competitive, the officer taking new rank accordingly. By the law of 1877, however, this rule was changed, and the place gained on the register at the first examination remains unchanged. Subsequent promotions are by seniority only, and the examinations are, by usage, less rigid than the first two, the officer's record becoming an important element in the decision.

Surgeons have the relative rank of Lieutenant or Master, and are paid: the first five years, \$2,800, \$2,400, \$2,000; the second five years, \$3,200, \$2,800, \$2,400; the third five years, \$3,500, \$3,200, \$2,600; the fourth five years, \$3,700, \$3,600, \$2,800; after twenty years, \$4,200, \$4,000, \$3,000. Medical Inspectors have the relative rank of Commander, and Medical Directors that of Captain, which is the highest grade attainable by a staff officer, excepting the Chief of the Bureau, who, while so acting, holds the relative rank of Commodore. Directors and Inspectors, *while at sea*, are paid \$4,400 a year; under other circumstances the rank gives no advantage in the way of pay. Directors are seldom sent to sea.

A candidate for admission to the medical corps of the navy will have no difficulty in getting a permit to appear on presenting a certificate of good moral character and a letter from his preceptor. Political influence tends rather to hurt than to help him. He writes a "preliminary letter," answering certain questions as to his birth, education, etc., and undergoes a very rigid physical examination. The next day he writes a thesis. The following day he writes answers to from ten to fifteen written questions usually covering points in anatomy, physiology, surgery, practice, materia medica, chemistry, and therapeutics. Then follow about two days of oral examination, and one devoted to operations on the cadaver, the recognition of drugs by their appearance, the use of the microscope, and other instruments of special application, diagnosis in hospital wards, and the writing and compounding of prescriptions.

A good deal of importance is attached to literary and scientific attainments, and especially to a knowledge of spelling, grammar, and precision in writing. Other things being equal, a college-bred man is therefore likely to take higher rank than another, but the "humanities" are not essential.

THE ARMY MEDICAL CORPS.

It may not be amiss to give a few facts supplementary to the general information contained in Dr. Asch's article. At the time of the Surgeon-General's last annual report, dated October 1, 1882, there were six vacancies in the grade of assistant surgeon. To give some idea of the prospect the ordinary medical graduate has of obtaining admission to the medical corps of the army, we will state, on the authority of the same report, that an army medical examining board convened in New York on the 7th of November, 1877, and continued in session until June 30, 1882, and that during its session two hundred and fifty-eight candidates were invited to appear for examination, of whom forty-two failed to appear, one hundred and twenty-six withdrew after a partial examination, fifty-one were rejected, and thirty-nine were found qualified.

We mention these facts not for the purpose of discouraging young men who may have an idea of attempting to obtain admission to the medical service of the army, but simply that they may enter upon the contest with their eyes open, and without any deceptive notion as to the difficulties to be encountered.

THE MARINE-HOSPITAL SERVICE.

THE United States Marine-Hospital Service, an adjunct of the Treasury Department, has for several years past most systematically and satisfactorily performed the work of caring for those of the sick and injured sailors of the merchant marine that have been admitted to the various marine hospitals established throughout the country. Most of these hospitals have been in operation for several years; but in former times, although some of them were well managed, they were not free from influences that tended to impair their usefulness, chiefly that stagnation that so readily besets men when their work is not supervised by others, or reasonably open to general inspection. All this has been changed by the admirable organization of which we are speaking, and the staff of the Marine-Hospital Service has become one in which membership is in the highest degree creditable and advantageous. The clinical opportunities afforded by the service are large, as shown by the fact that 36,184 patients were treated during the year ending June 30, 1882. Quite recently the staff has been charged by Congress with important sanitary functions appertaining to epidemics, so that the service now gives opportunities for acquiring practical knowledge relating to the management of pestilential diseases. Elsewhere in this number of the journal we give some facts in regard to the steps necessary to be taken to obtain an appointment to the Marine-Hospital Service.

Proceedings of Societies.

NEW YORK SURGICAL SOCIETY.

A STATED meeting was held December 26, 1882, Dr. T. M. MARKOE, President, in the chair.

EXCISION OF THE ARTICULAR EXTREMITIES OF THE PHALANXES.—Dr. ALFRED C. POST presented a patient upon whom he had operated for the relief of an angular deformity of about

fifty degrees of the index-finger of the left hand. It was one of a class of cases in which he had operated a considerable number of times within the past few years by excising the end of the phalanx. About fourteen years ago this patient had his finger dislocated while playing base-ball. The dislocation was not reduced, and the terminal phalanx remained flexed at about the angle mentioned. For some time before he came under Dr. Post's observation there had been suppurative disease, and, on examination, there were found two sinuses leading down to rough bone. The operation, therefore, was performed not merely for the correction of the deformity, but for the removal of the carious portion of bone, and in this instance, instead of excising the distal end of the proximal bone, he excised the diseased portion of the ungual phalanx. The operation had been performed a little more than three weeks, during which time the finger had been supported by a splint. Three days ago the splint was removed, and the parts were supported by adhesive plaster. The wound healed readily, and the deformity had been corrected. Dr. Post said that the operation, in his experience, had not been attended by so much irritation as had amputation of the phalanx. He had applied the same operation to the phalanges of the toes. He had not met with any instance in which there had been any considerable amount of irritation following the operation. He believed that the wounds healed quite as readily as after amputation. He had not succeeded, of course, in securing a perfect joint, although there had been in nearly all the cases some motion. The after-treatment consisted in keeping the parts supported until they became sufficiently firm to sustain themselves.

The PRESIDENT then read the following paper on TRIPIER'S MEDIO-TARSAL AMPUTATION:

During my residence at the New York Hospital, in the years 1839-'40-'41, one of our best surgical nurses, a man named George Compton, had lost both of his feet by amputation through the tarsus by Chopart's method. He wore on each foot a shoe, not very ingeniously contrived, nor very neatly constructed, but one which, nevertheless, by much forbearance and not a little suffering, he was able to wear occasionally, and to stump about his ward with considerable agility, which certainly was the reverse of graceful. I remember that he used to pad his shoes very carefully with layers of old blanket, cut to fit the stump, and then to lace them very tightly round the ankle and part way up the leg. Thus provided, he was able to get about with some comfort for a certain time; but soon the pressure upon the cicatrices gave rise to pain and soreness, frequently terminating in most intractable ulceration, and it must be acknowledged that, brave as he appeared in his shore toggery on Sunday morning, as he walked down the front avenue leading to Broadway, he would commonly come back in the evening wearied and limping, and glad enough to get rid of his uncomfortable shoes, and only too happy to be allowed to stump about on his knees. Of course, he was not at all times equally disabled. Several of the surgeons of the hospital tried to improve his stumps by various operations and modes of treatment, but without any permanent benefit, and to the last his active and useful life was rendered miserable by the constant irritation of ulcerated and tender stumps, and his intelligence and courage and endurance only showed what a prize he might have won in life's race if he had not been so heavily handicapped. I did not then study the position and relation of the bones, as I should be only too happy to do now; but this I remember, that his chief trouble arose from the frequent and intractable ulcerations of the face of the stump, showing that the cicatrix bore the chief weight of the body when he walked, and was, therefore, constantly suffering from the effect of pressure directed immediately upon it.

This unfavorable behavior of the stump left by Chopart's

amputation has been noticed by all the surgeons who have had much to do with this operation, and much thought and ingenuity have been expended in endeavoring to explain and to obviate it. In regard to the cause, all seem to be agreed that it depends upon a change in the position of the stump, whereby the heel being forcibly drawn up, the front part, or the cicatricial face, is thrown downward, so that, instead of resting on the natural plantar cushion of the inferior surface of the stump, this anterior surface receives the whole weight of the body. It is somewhat remarkable that so wide a diversity of opinion should exist among really good observers as to the reason of this change. It would seem to be a simple and adequate explanation of the deformity to say that it is due to the unopposed contraction of the gastrocnemial muscles; but I find that at a recent meeting of the Société de Chirurgie, in Paris, a M. Larger read a paper on the causes of the tilting of the heel after partial amputations of the foot, and arrives at the conclusion that it is due solely to the atrophy of the anterior muscles of the leg, and not at all to the action of the calf muscles, which, he asserts, take no active part in the change of the position of the heel. Acting upon this theory, he applies electricity to the weakened muscles, and insists that any other treatment is entirely unphilosophical, and, therefore, useless. The report of the committee, to whom this paper of M. Larger was referred did not accept the exclusive views of the writer, and, while they acknowledged the possible occurrence of the atrophy in question, they felt that they could not ignore the powerful influence of the muscles of the calf. In the course of the discussion which followed, M. Verneuil contended that both the anterior and the posterior muscles of the leg undergo atrophy after these amputations, and that, therefore, neither of them have anything to do with the displacements in question.

By all the older, and by far the larger number of the best modern authorities, the calf muscles are fully recognized as the active agents in producing, or, at the least, in perpetuating the deformity. The main practical question, it seems to me, is, What other vital or mechanical conditions favor, though they may not originate, the undesirable position which the foot is so apt to assume? That there are other causes which at least contribute to this undesirable result would seem to be proved by the fact that division of the tendon has been recommended by many of the best operators, and yet it is universally acknowledged that this procedure does not by any means always prevent the deformity, and still less cure it when it has occurred. Let us look now at one of these accessory causes, to my mind a very important one, and see what practical relation it may have to the main cause, and to the prevention of the trouble.

While the patient is in a standing position, the tendency of strong contraction of the gastrocnemial muscles is to draw up the heel, and thereby extend the foot upon the leg. This movement is resisted by the long lever of the foot pressing upon the ground, and thereby preventing the extension from taking place. The only effect, then, of moderate action of the several muscles is, to keep the foot firmly planted on the ground, and at the same time to prevent the body from falling forward. If now the action of the calf muscles be much increased, the ball of the foot remaining in contact with the ground, the effect will be to raise the posterior part of the foot, and with it the whole body, which rises as the act of extension of the foot on the leg is accomplished. The action results from the power acting on the short arm of the lever moving the resistance on the fulcrum which is at the end of the long arm of the lever.

Now, let us suppose that, as happens in Chopart's amputation, the long arm of the lever is removed by section between the scaphoid and astragalus; and then we should have the power, A (Fig. 1), unopposed by the fulcrum, C, and, therefore, unable

to counteract the resistance, B, which would force the astragalus downward until it came in contact with the ground. This becomes plain on glancing at Fig. 2.

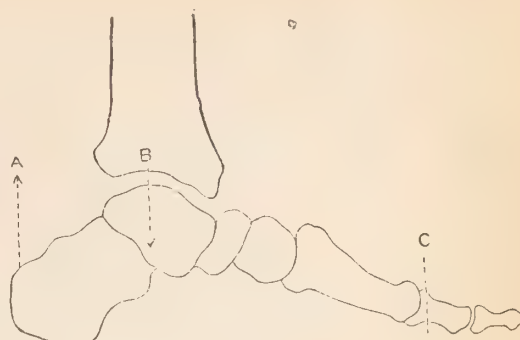


FIG. 1.

If now the unopposed power continues to act, its only further effect, after the astragalus has reached the ground, must be to raise the heel higher and thereby roll the astragalus in its mortise between the malleoli so that its anterior face looks more and more downward, until finally it comes to press directly on the ground. It must not be forgotten, however, in thus estimating the action of the several muscles, that, if their influence should be entirely eliminated, as by tenotomy, for example, there would still remain, in the obliquity of the under surface of the bones remaining after a Chopart's amputation, a mechanical reason why the heel should rise and the astragalus descend, as soon as the weight of the body is brought to bear, as in the act of standing. These two causes, then, it seems to me, conspire to produce the result we are considering, viz.: 1, the unopposed contraction of the gastrocnemial muscles; and, 2, the oblique surface, in reference to the level of the ground, presented by the inferior surface of the bones which constitute the stump. When now we add to these statements the facts that the ligamentous tissues around the ankle-joint soon become so contracted and so rigid in their changed position that even when the tendons are cut they will obstinately maintain the displacement, we have related the chief if not the only causes which produce or perpetuate the deformity now under consideration. A review of these different causes shows also why it is that the

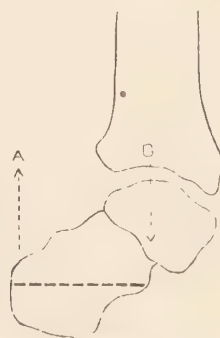


FIG. 2.

deformity is not in every case relieviable by section of the tendo Achillis, and particularly why that operation, performed after the lark-heel has become established, does, in many cases, so little to improve the usefulness of the medio-tarsal stump.

The study of the causes of the deformity of the Chopart stump has led surgeons to seek some plan by which it might be avoided, and various suggestions have been offered in that direction. The one to which I wish to call the attention of the society is one which was first brought forward by M. Tripiet, of

Lyons, and which has since gone by his name. It may be considered as a modification of Chopart's amputation in so far that the astragalus and calcaneum are left, but it differs from it in this: that a segment is sawed off from the lower part of the os calcis in such a way as to leave the lower or plantar surface of the bone showing a line parallel with the surface of the ground on which it bears in standing or walking. This section is made at the level of the sustentaculum tali in such a direction as to bring the line of the saw-cut at right angles to that of the tibia, leaving, therefore, a bone surface which, when the weight of the body is brought to bear on the stump, will have no tendency to change its relation parallel to the ground on which it rests. This is the principle of the operation, and its originator claims for it great success. The cases in which the operation has been tested thus far are very few in number, and time enough has not yet elapsed to enable us to reach a final verdict as to its merits. In the "British Medical Journal" of February 26, 1881, Dr. P. I. Hayes, of Kingston, Surgeon of the Mater Misericordiae Hospital, reports a case in which he operated in this method, the man making a good recovery and walking without a crutch in a month. He has since reported the operation with a like satisfactory result. Mr. Wagstaffe, in the "London Medical Record," discusses the merits of this operation, and approves of it as likely to prevent the tilting heel. He contrasts the operation with the subastragalar, and gives preference to the method of Tripiér. He does not say that he has ever done the operation.

Tripiér's amputation is performed by an incision which commences on the outer border of the tendo Achillis, on a level with the outer malleolus, passes downward and forward, skirting the malleolus about one inch below it, passes then along the outer border of the foot, rather more toward the dorsal than the plantar surface, till it reaches the base of the metatarsal bone of the little toe. The line of incision here turns upward and inward, passing across the dorsum of the foot till it reaches the base of the metatarsal bone of the great toe, and there, turning downward and forward into the sole, is continued across the sole, making a convex flap at least an inch longer than the dorsal. When it reaches the outer border of the sole it turns backward and upward, and joins the original incision at an oblique angle on the outer side of the foot. The flaps thus marked out are raised so far as may be necessary to disarticulate between the astragalus and the scaphoid, and between the os calcis and the cuboid, leaving behind the astragalus and os calcis, so that they can be exposed as high as the sustentaculum tali; this part of the operation resembling the dissection round the heel in Syme's amputation at the ankle joint. When the lower part of the calcaneum is thus fully exposed, it is to be sawed through just below the level of the sustentaculum, so as to make the line of saw-cut as near as may be at right angles to the line of the tibia when the patient is standing, and, therefore, parallel to the line of the ground on which it is to be placed. The section of the bone is recommended to be made from within outward, thereby more surely avoiding any injury to the posterior tibial artery, which, from its importance, bearing on the life of the plantar flap, is to be most carefully guarded. Having made sure that the section of the bone has been made in the desired line, the sharp edges and corners of the bone are to be removed with cutting forceps, and the flaps brought into place and united by many sutures. Proper drainage tubes being placed, and a supporting dressing applied which shall hold the lower flap well in its place, the operation is completed.

I performed the operation in the following case: John Ohmer, a German, aged thirty-three, a waiter by occupation, was admitted to the New York Hospital April 18, 1882. His health had been good until about four months previous, when, without

any known cause, his left ankle became swollen and painful. The trouble rather slowly increased, he continuing to walk about for nearly a month, when his ankle became so distressing to him that he took to his room, and finally to his bed. The further course of the disease was one of steady increase, with increasing and finally severe and constant pain. On admission, the tarsal region was recognized as the seat of the disease, the swelling, however, extending up to the ankle joint. The swollen parts were very hard, and tender to the touch, and the whole region was hot and painful, but without much redness of surface. After a time obscure, deep fluctuation could be discovered, and some crepitation could occasionally be elicited by moving the metatarsal bones on the tarsus. Deep incisions were made, letting out a great deal of pus. The parts were poulticed, and everything was done that we could think of to improve his general nutritive condition, but without result. The abscess did not heal. Fistulæ remained. Pain was not mitigated. In short, the carious disease was making constant progress. On the 20th of May the actual cautery was applied at several points on the dorsum of the foot, but, beyond relieved pain, no benefit could be traced. The question of amputation soon decided itself, and, inasmuch as we felt confident that disease was confined to the anterior row of the tarsal bones, it was regarded as a suitable case in which to make a trial of Tripiér's method. The amputation was done on the 7th of June, precisely in accordance with the description given above. Particular care was taken to make the plantar flap as liberal as possible. All the fistulæ leading down to carious bone were included in the part removed, except one which remained on the inner side of the stump. When the disarticulation was accomplished, the remaining bones were carefully examined, and were considered to be free from disease; and the section of the os calcis revealed bone tissue, softened, indeed, from the atrophy of disuse, but, as far as we could judge, free from present disease. The flap fitted exceedingly well, and covered the bone without the slightest tension. Everything proceeded to our entire satisfaction during the first few days after the amputation. The wound healed almost entirely by the first intention, and he improved very greatly in his general condition as soon as he was released from the irritation caused by the carious bone. The local conditions, however, did not long continue favorable. Part of the wound broke open, and gave issue to pus, which it was soon evident came from a deeper source than the surface granulations. The stump became swollen and painful, and it became clear that carious disease had attacked the astragalus, and probably the os calcis. His general condition began now pretty rapidly to depreciate, and, though the operation wound was for the most part soundly healed, we were convinced that there was hopeless local disorganization of the bones, and that reamputation was the only thing that could save his life. The limb was accordingly amputated through the lower part of the leg on the 8th of August, just two months after the previous operation had been performed. He made a rather slow, but ultimately a perfect recovery.

As far as the cure of the disease was concerned, Tripiér's amputation, in this case, was not a success, the mischief spreading to the bones left in the stump, and requiring another operation for its eradication. This feature has, however, no particular bearing on the amputation itself, which is the subject we are now considering; and it may be said, generally, that in all these partial operations on the foot, and also on the hand, some uncertainty must exist, first, as to whether any disease of the bones has been left behind, or, secondly, whether the bones, now healthy, may not take on diseased action in the future. As a rule, I think this point ought, with care, to be determined with substantial accuracy, and, in point of fact, recurrence of disease

has been found to be rare. I am aware that Mr. Syme says: "In this operation the astragalus and os calcis are left, and, though they appear sound at the time of operation, yet the disease frequently recurs, as you may learn from the fact that I once performed three secondary operations within the period of twelve months upon stumps in which Chopart's operation had been practiced." On the other hand, Mr. Hancock replies: "This objection, thus forcibly urged by Mr. Syme, is, I am aware, maintained by other surgeons; but it is not supported by the statistics of the operation, since of one hundred and four cases, exclusive of those mentioned by Mr. Syme, I find only two followed by secondary amputation, and this for retraction and painful cicatrix, and not for recurring disease."

The new operation seems to me to offer a satisfactory substitute for a very unsatisfactory one, such as in many cases Chopart's amputation is conceded to be. It is an operation not yet proved, scarcely fairly tried, and it would, therefore, be unwise to pronounce too positively on its merits. That it is feasible, that it makes a good stump, is settled by the few cases in which it has been done. That it certainly and perfectly obviates all the disadvantages of the amputation which it is proposed to displace we can not be sure. I can only say that, as far as theoretical considerations go, and as far as a very few cases can be trusted, it seems to promise well, and I challenge for it the careful consideration of those who may have occasion to perform a medio-tarsal amputation.

Dr. Post referred to another operation, which furnished better results, so far as usefulness of the limb was concerned, than did Chopart's—namely, that performed by Dr. Quimby, also claimed by Dr. Turnipseed, of South Carolina. It consisted in a modification of Pirogoff's operation, but differed from it in the fact that the lower extremities of the tibia and fibula were left entire, the cut surface of the os calcis being brought in contact with the cartilage covering the lower extremity of the tibia. Dr. Quimby had performed the operation three times, and Dr. Post had performed it twice, and in all the cases there had been a good stump, and no inconvenience had resulted from want of homogeneity of the parts brought together. The wounds had healed kindly and the stumps had been firm, and the operation had been attended by only a moderate amount of shortening.

Dr. L. A. STIMSON said the idea of the operation referred to by Dr. Post was not novel. It had been considered by Pirogoff himself, and, he believed, also by the English surgeon Ure, who devised the operation at about the same time as Pirogoff. The suggestion has been frequently referred to, and generally condemned. The lower end of the tibia is sawed off in Pirogoff's amputation, not because surgeons do not know that bone and cartilage can unite, but mainly because of the difficulty of otherwise keeping the end of the calcaneum from being drawn up by the tense tendo Achillis—the same reason that has led to modifications in the direction of the line of section of the calcaneum, or of both bones. Dr. Stimson also asked if it had been found difficult to perform Tripier's operation.

The PRESIDENT remarked that there was no greater difficulty in the performance of the operation than obtained in Syme's or Chopart's, except with reference to following the line of the incision.

Dr. CHARLES McBURNEY had performed Chopart's operation in one case in which there was ankylosis of the ankle-joint not produced by disease, but by long confinement in one position. The patient made an excellent recovery, and had a useful stump. That fact suggested to him the question as to whether sufficiently strict attention had been paid to retaining the stump in proper position for a sufficient length of time after Chopart's operation had been performed. The idea was to retain it in position for a sufficient length of time to allow a certain loss of

muscular power to take place, so that there would not be a marked antagonism between the anterior and posterior groups. He could easily imagine that the stump after Chopart's operation might bend downward within two weeks if allowed to follow its own course. He asked Dr. Markoe if he was able to give any information upon that point.

The PRESIDENT replied that, so far as he recollected, none of the authorities had directed attention to the question raised by Dr. McBurney. It seemed to him, however, to be a reasonable suggestion; and it also seemed to him that the mechanical factor—even with atrophy of both sets of muscles, the os calcis touching the ground first—was the great factor of the operation. Contraction of the muscles was probably another important factor.

Dr. H. B. SANDS believed that the neglect to prevent this extreme extension of the foot after Chopart's operation had been recognized by European continental surgeons as, perhaps, the main cause of the subsequent difficulty in locomotion. He believed it had been claimed that, if extension of the foot was duly prevented during the course of the treatment immediately following the amputation, it would not subsequently take place to such a degree as to bring the cicatrix in contact with the ground, provided the former was not placed too near the plantar surface. He believed that the verdict given by American surgeons against Chopart's amputation had not been sustained by statistics. The statistics given by Max Schede proved that the limb after Chopart's operation was not more frequently useless than after other partial amputations of the foot. There was only ten per cent. of useless limbs after Chopart's operation. He thought that Chopart's operation was entirely legitimate, provided the astragalus and os calcis were both sound. There was an objection to both Chopart's and Tripier's operation—namely, that when carious disease invaded the tarsal bones it was apt to implicate, sooner or later, all of them, and thus there might occur, as in the case related, extension of the disease after performance of the operation, so as to render necessary amputation at a higher point. Some years ago Mr. Hancock proposed in cases of partial amputation to regard the foot as a whole, and to operate without reference to the articulations, forming the flaps and sawing the bones as might be expedient. Dr. Sands thought that the suggestion made many years ago was particularly useful in these days of antiseptic surgery, when operation wounds, whether of bones or joints, were so likely to pursue a favorable course.

Dr. ROBERT F. WEIR supplemented Dr. Sands's remark by the statement that Hancock also suggested the removal of a small section of bone so as to counteract the contraction of the posterior group of muscles.

Dr. CHARLES K. BRIDDON said that within the last two weeks a patient came under his observation who had had Chopart's operation performed two years ago. Since that time he had been incapacitated in going about on account of painful ulceration in the line of the cicatrix; the whole of the anterior surface of the stump was covered with cicatricial tissue, and a spot of about the size of a quarter of a dollar was in a state of ulceration. He thought the ulcerated condition was not attributable entirely to the operation, inasmuch as the operation had probably been performed in apparently healthy tissues. The original injury was a railroad accident, and he therefore presumed that, as is commonly the case in railroad accidents, the vitality of the tissues was, to a greater or less extent, destroyed to a point higher than that at which the amputation was made, as some sloughing of the flaps took place, making them scanty and tense, and ulceration occurred after repeated cicatrization. As a further operation he had recommended Syme's amputation.

(To be concluded.)

Miscellany.

HOUSE STAFF POSITIONS IN NEW YORK HOSPITALS.—For information in regard to the several hospitals in New York, Dr. Roosa, in an article contained in this number of the journal, refers his readers to the "Medical Register." That volume will be found to give many facts in point, but we think the recent graduate who contemplates trying for a hospital appointment will look upon the following supplementary data as furnishing him with points that he could not otherwise obtain readily:

New York Hospital.—This is the oldest hospital in New York, having been founded in 1770. Its history has always been creditable, and within its walls many of the most brilliant feats of American surgery have been accomplished. For many years it has been noted for the precision attained to by its house staff in matters of minor surgery, so much so that during the late civil war many an army surgeon was heard to exclaim, after witnessing an uncommonly clever application of a bandage: "That man must have come from the New York Hospital."

The house staff consists of a House Physician and a House Surgeon, and their senior and junior assistants—six in all. The term of service is eighteen months, six months in each grade. The appointments are made on the 1st of June and the 1st of December of each year, by the Board of Governors, on the recommendation of the Medical Board. Graduates of any regular medical college are eligible, and the two who pass the best examination (in writing and orally) are nominated. Candidates must make written application to the Secretary of the Medical Board, Dr. Woolsey Johnson, and the application must be indorsed by one of the Consulting or Attending Physicians or Surgeons. Except the Junior Assistant Physician, all the members of the house staff reside in the hospital. On the Surgical Division, from one to three Dressers are appointed, for a period of from three to six months, by the Attending Surgeon on duty at the time. They are usually selected from the unsuccessful candidates at the examination, do not reside in the house, and are not in the line of promotion. One of them acts as Junior Assistant in case of the absence of any member of the house staff. The ambulance service is in charge of the Junior Assistant Surgeon, assisted by the Dressers. Diplomas are awarded to the outgoing members of the staff. As a rule, patients with chronic diseases are not admitted, so that the service of the house is very active.

Bellevue Hospital.—In this large hospital there are eight divisions, four medical and four surgical, to each of which three members of the house staff are attached, making twenty-four in all, besides two ambulance surgeons (the latter not in the line of promotion). The term of service is eighteen months, six months in each of the three grades of Junior, Senior, and "House." Vacancies occur on the 1st of April and the 1st of October. The method of appointment is peculiar: of the eight vacancies that take place every six months, two are filled on the nomination of those members of the Attending Staff who are connected with the College of Physicians and Surgeons; two on that of the members attached to the Medical Department of the University of the City of New York; two on that of those belonging to the faculty of Bellevue Hospital Medical College; and the remaining two on that of those who have no college connection. We understand that the two last named get their nomination as the result of a competitive examination, and that those appointed on behalf of the College of Physicians and Surgeons are the "honor men" in the college examination for the degree of M. D. So far as is compatible with all these requirements, the places are open to all applicants, suitability being the only test. The service at Bellevue is very large, including a lying-in service at the Emergency Hospital, also a term in the lunacy pavilion, each of which is taken by the several members of the staff in turn. The advantages of this hospital for bedside instruction are made the most of by the Attending Physicians and Surgeons, much to the profit of the house staff. None but the House Physicians and House Surgeons reside in the house, except that that one of the surgical Juniors who may be in charge of the erysipelas service (which they take in turn, each for a term of six weeks) lives in the house while on that duty.

Roosevelt Hospital.—There are six gentlemen on the house staff—a House Physician, a House Surgeon, and a Senior and Junior Assistant under each. The term of service is eighteen months—six months in each grade. Vacancies occur on the 1st of June and the 1st of December, the examinations being held in May and November. Competitive examination is the test, appointment depending solely on the candidate's general fitness, although, other things being equal, graduates of one of the New York city schools are preferred. One of the special advantages of this hospital is, that there is a well-conducted gynecological service attached to the medical division. Members of the house staff reside in the hospital during their whole term of service. Applications should be made to the Chairman of the Committee on Examinations, Dr. Henry B. Sands, 35 West Thirty-third Street. Notice of the date of the examination is usually published.

Charity Hospital.—The house staff consists of twenty-four men—eight divisions, each comprising a "House," a Senior, and a Junior, who serve six months in each grade (eighteen months in all). Vacancies occur April 1st and October 1st. Competitive examination is the sole test. The range of the services is greater, and the patients are more numerous, than in any of the other hospitals. The departments are medical, surgical, venereal, dermatological, ophthalmological, otological, laryngological, and gynecological, and there is a ward for convalescent puerperal women. The members of the house staff reside in the house only during the last six months of their service, but the Senior and Junior Assistants are provided with luncheon.

St. Luke's Hospital.—The house staff comprises six men—a House Physician and a House Surgeon, each with his Senior and Junior Assistants. The term of service is eighteen months, including six months in each grade. Vacancies occur in June and December. Candidates have to submit to a competitive examination (orally and in writing), after having been passed upon by the Executive Committee of the Board of Trustees. Residence begins at the close of the first six months.

German Hospital.—The arrangement is peculiar: vacancies do not occur at stated times, but a contract is made with the appointees, by virtue of which they undertake to serve at least one year, and so long a time in addition as it pleases both parties, three months' notice by either party working an annulment of the contract. The staff consists of a First, a Second, and a Third House Physician, and a non-resident assistant, advancement in grade taking place whenever a vacancy occurs. No competitive examination is required, but suitability is the only test, stress being laid on good technical training and executive capability. Graduates of German schools are preferred, but at present there are three Americans on the staff. The particular advantages of a service in this hospital are thought to be the strictness of its discipline, the constant attention of the Medical Board, and the fact that a very large and valuable medical library is open to the use of the staff. The First House Physician is paid an annual salary of \$350; the Second, one of \$250; and the Third, one of \$200.

Mt. Sinai Hospital.—The house staff is made up of a House Physician, with his Senior and Junior Assistants, and a House Surgeon, with his Senior and Junior Assistants. The term of service is eighteen months—six months in each grade. Vacancies occur on the 1st of June and the 1st of December, the examinations being held in May and November. Appointment depends solely on merit. There is a special children's service attached to the medical division, and an ophthalmological and otological, together with a gynecological service, connected with the surgical division. Residence begins at the close of the first six months, and meals are provided for the Juniors.

Presbyterian Hospital.—Four men compose the house staff; each serves two years in all—six months successively in each of the positions of medical Junior, surgical Junior, House Physician, and House Surgeon. Vacancies occur on the first of June and the first of December. Application should be made to the Board of Management, who examine into the candidates' moral qualifications, and only their nominees can be examined by the Medical Board. The medical examination is the final test. The appointees must be graduates in medicine. The alternate medical and surgical service is considered to be of great advantage. The members of the house staff reside in the hospital during their whole term of service.

St. Francis's Hospital.—The house staff consists of five—a House Physician, a House Surgeon, two First Assistants, and a Second Assistant. The term of service is eighteen months (six months in each grade). Vacancies occur the last of March and the last of September. Competitive examination practically decides the question of appointment, but men who speak German are preferred. Each member of the staff serves alternately on the medical and the surgical side. The latter includes a gynecological service. None of the house staff reside in the hospital, but all of them are furnished with luncheon.

Chambers Street Hospital.—A House Surgeon and his Senior and Junior Assistants compose the house staff, and the term of service is one year (four months in each grade). Vacancies occur the first of February, the first of June, and the first of October, candidates submitting to a competitive examination, written and oral. The Junior acts as Ambulance Surgeon, and assists both the Senior and the House Surgeon. The Senior is occupied mainly with the out-patients. The House Surgeon, in addition to the duties that fall upon that officer in other hospitals, keeps the records, a work performed in most hospitals by the Senior. The out-patient department employs three or four supernumerary assistants (either graduates or third-year students), who serve from two to five hours a day, under the direction of the Senior. We understand that there is a probability that a change will soon be made, so that the department will be in charge of an out-patient surgeon, who will attend from nine or ten o'clock in the morning until noon, every day but Sunday, being responsible directly to the Attending Surgeon, who will inspect all patients twice a week, besides making daily visits to those in the wards. All the members of the regular house staff, including an additional Ambulance Surgeon, but not including those who serve as assistants in the out-patient department, reside in the house. The supernumerary Ambulance Surgeon is appointed for a term of two, three, or four months, without undergoing an examination.

St. Vincent's Hospital.—The house staff consists, so far as our information goes, of three men—a Resident, a Senior, and a Junior, all of whom serve on both the medical and the surgical division. The hospital is reputed to have an excellent surgical service.

State Emigrant Refuge and Hospital.—This institution is under the control of the Commissioners of Emigration of the State of New York, by whom all appointments are made. For several years past its administration has differed materially from that of most hospitals, in that there has been no attending staff, but only a Physician-in-chief (who is provided with a house, servants, fuel, etc., and receives a salary of \$1,500 a year) and a Resident Staff of four Assistant Physicians, each of whom is paid \$1,200 a year. Vacancies occur only by resignation or by removal for cause. There is no competitive examination, but the present Board of Commissioners insist that an applicant must have had previous hospital experience, and that he must be able to speak some foreign language fluently, especially German. The duties of the Resident Staff are exceptional, in that they have the charge of, and the responsibility for, the management of the patients in the wards, subject only to the Physician-in-chief.

The opportunities for clinical study afforded in this hospital are of the finest, as regards the number, the variety, and the interesting character of the acute cases under observation. The duties of one of the Assistants are confined to the lunatic asylum, where there are about two hundred patients. All surgical work is required to be done under the direct supervision of the Physician-in-chief, and in capital cases the advice of a member of the Consulting Board may be called for. At present that board is composed of three physicians (Dr. S. O. Vanderpoel, Dr. E. G. Janeway, and Dr. J. W. McLane) and three surgeons (Dr. H. Knapp, Dr. D. M. Stimson, and Dr. W. S. Halsted). The obstetrical service is quite large. The present Commissioners of Emigration are: Henry A. Hurlbut, President; Henry J. Jackson, Secretary; George J. Forrest, Edmund Stephenson, George Starr, Charles F. Ulrich, Charles N. Taintor, the Mayor of New York, the President of the Irish Emigrant Society, and the President of the German Society.

Colored Home and Hospital.—A House Physician and an Assistant serve one year each, six months in each grade. There is no formal examination. The appointment lies with the Attending Physician, Dr.

G. G. Wheelock, 75 Park Avenue, to whom application should be made. The patients are mostly affected with chronic diseases, but there is a fair amount of surgery and midwifery, as well as a good deal of venereal practice.

Randall's Island Hospitals.—As it is commonly supposed that the service on Randall's Island is limited to the Infants' Hospital, it may be stated that it includes also the Children's Hospital, the Adult Hospital, the Idiot and Epileptic Asylum, and a branch of the City Lunatic Asylum. The term of service is eighteen months, and the members of the staff reside on the island during the whole of that time. They are required to be graduates, to furnish satisfactory credentials of moral character, and to submit to a competitive examination. The examining board consists of Dr. Franz Heuel, Jr., Chairman, 33 Irving Place; Dr. E. A. Maxwell, 207 East Fiftieth Street; Dr. Francis Valk, 223 East Thirty-fifth Street; and Dr. J. L. Perry, 102 West Forty-eighth Street. As a rule, the examinations are held at the Chairman's house. Application may be made to any member of the examining board, or to Dr. J. P. Munn, Secretary of the Medical Board, 50 East Thirty-first Street. Two vacancies are to be filled the 1st of April, and the examination will probably be held some time in the last week in March. Medical graduates do not seem to be generally aware of the value of this service; when it is better known, it will doubtless be more sought after.

Nursery and Child's Hospital.—The house staff consists of one House Physician and one Assistant House Physician, the term of service being six months in each grade, one year in all, and both reside in the house during the entire term. Vacancies occur the 1st of June and the 1st of December, competitive examinations being held about ten days prior to those dates. Applicants must be graduates in medicine, and their character as gentlemen must be well attested. Other things being equal, those who have had previous hospital experience are preferred. The hospital affords excellent opportunities for the study of obstetrics and the diseases of children. About two hundred and forty cases of labor occur annually, chiefly among primiparæ, and about seven hundred children are inmates for a longer or shorter time each year. As some women are admitted with their children after confinement, the entire number of adults cared for during the year is about four hundred and fifty. The opportunities for the study of diseases of children are exceptionally good. No children over four years of age are retained in the institution.

Woman's Hospital.—The house staff consists of two House Surgeons, two Seniors, and two Juniors, all of whom, except the Juniors, reside in the house during their entire term of service (eighteen months in all, six months in each grade), except when the institution is closed, as it is every summer from the 1st of July to about the middle of September. Appointments are made on the 1st of April and the 1st of October, the examinations being held at the hospital on the last Wednesday in March and September. Application should be made to Dr. James B. Hunter, Secretary of the Medical Board, 2 East Thirty-third Street. One of the House Surgeons has charge of the executive work of the medical service—attending to correspondence, the admission of patients, and the control of the nurses. The Attending Surgeons, five in number, have a continuous service—three on one division, and two on the other; each house staff serves first on one division and then on the other, changing once in six months. The practice of the house is entirely gynecological, and very largely operative. Nowhere else in America is there so good an opportunity to observe abdominal surgery, and in no other place in the world can more be learned in general gynecological surgery.

New York Eye and Ear Infirmary.—There is only one house officer, whose term of service is two years. The next vacancy occurs November 1, 1884. The last appointment was made after a competitive examination, but practically the Executive Surgeon has the sole appointing power. The emoluments consist of an annual salary of \$400, a private room, and board.

Manhattan Eye and Ear Hospital.—Here, also, there is but one house officer. The regular term of service is one year, but it is sometimes extended to two years. The vacancy occurs in October. There is no examination. The House Surgeon resides in the hospital, but has no salary. It is intended to give him an assistant very soon.

SANITARY APPOINTMENTS.—The Board of Health employs about twenty regular Sanitary Inspectors, each of whom is paid \$1,550 a year. The salary is the chief attraction, as the duties are monotonous, somewhat exacting, and not often interesting. Nevertheless, there are hundreds of applicant's now on the list. The appointments are made by the Health Commissioners, consisting of the Health Officer of the port and the President of the Board of Police Commissioners, *ex-officio*, and Professor Charles F. Chandler and Dr. Woolsey Johnson. Besides the Sanitary Inspectors, there is a Vaccinating Corps, varying from five to ten in number, each man being paid \$1,200 a year. When a vacancy occurs in the corps of Sanitary Inspectors, it is usually filled from the Vaccinating Corps. Every summer an auxiliary corps is employed for a few weeks, consisting of from fifty to a hundred men, each of whom is paid at the rate of \$100 a month. Their duties are to visit the inmates of tenement-houses and prescribe for the sick poor.

AN ARMY MEDICAL EXAMINING BOARD has been ordered to assemble at the Army Building, corner of Houston and Greene Streets, New York City, New York, March 1, 1883, for the examination of such persons as may be properly invited to present themselves before it as candidates for appointment in the Medical Corps of the army, and will probably continue in session about three months.

All candidates for appointment in the Medical Corps must apply to the Secretary of War for an invitation to appear for examination. The application must be in the handwriting of the applicant, must state date and place of his birth, and place and State of which he is a permanent resident, and must be accompanied by certificates based on personal acquaintance from at least two persons of repute as to citizenship, character, and moral habits; testimonials as to professional standing from professors of the medical college at which he graduated should also accompany the application, if they can be obtained. The candidate must be between twenty-one and twenty-eight years of age (without any exceptions), and a graduate of a regular medical college, evidence of which, his diploma, must be submitted to the board.

Further information regarding these examinations and the nature thereof can be obtained by addressing the Surgeon-General, United States army, Washington, D. C.

THE MARINE-HOSPITAL SERVICE.—At present there are no vacancies, and the time and place of meeting of an examining board can not now be stated. The board usually meets in Washington. The Civil Service Act of January 16, 1883, is applicable as regards appointments, promotions, and removals of medical officers. The compensation of Surgeons is at the rate of \$2,500 per annum; that of Passed Assistant Surgeons, \$1,800; and that of Assistant Surgeons, \$1,600. Candidates, in presenting their applications for examination, should state their age, the medical school or college of which they are graduates, and furnish testimonials from at least two persons as to their professional and moral character.

The Supervising Surgeon-General has published the following extract from the regulations of the service for the information of candidates :

“ 24. Original appointments of medical officers in the United States Marine-Hospital Service will be made to the grade of Assistant Surgeon only.

“ 25. Medical officers in the Marine-Hospital Service will in no case be appointed to any particular station, but to the general service, being subject to change of station as the exigencies of the service may require, and shall serve in any part of the United States wherever assigned to duty by the Secretary of the Treasury.

“ 26. No person will be appointed an Assistant Surgeon whose age is less than twenty-one or more than thirty years, and, as a preliminary to a recommendation for appointment, the applicant must have graduated in medicine at some respectable medical college, and must pass a satisfactory physical and professional examination before a board of surgeons of the Marine-Hospital Service, which will be convened from time to time, for that purpose, by the Secretary of the Treasury.

“ 27. The passing of an examination must not be considered as giving assurance of appointment, as the department will select those of the highest attainments in case there should be more candidates than vacancies.

“ 28. No qualified candidate will be eligible for appointment more than one year. If not appointed within that time, he may, if he desires, be re-examined, when, if successful, he will take position with the class last examined.

“ 29. An applicant failing at one examination may be allowed a second examination, after one year, but not a third.

“ 30. Assistant Surgeons, after three years' service, at least one year of which shall have been at a United States Marine Hospital, shall be entitled to an examination for promotion to the grade of Passed Assistant Surgeon. The application for this examination must be accompanied with testimonials of correct deportment and habits of industry from the Surgeons with whom they have served, and the applicant must be familiar with these regulations.

“ 31. A vacancy in the grade of Surgeon will be filled by promotion from among the Passed Assistant Surgeons.”

We quote as follows from the Annual Report of the Supervising Surgeon-General for the year 1880 :

“ There is probably no branch of the public service to which the rules laid down by the Civil-Service Regulations of 1872 can be more easily applied. The experience of this office has not only demonstrated their practicability, but has proved entirely satisfactory. The following table shows the number of candidates examined for the past five years :

YEAR.	No. of candidates.	No. of branches in which examined.	Passed.	Rejected.	Percentage of rejections to whole number examined.	Number invited to appear for examination.
1875.....	11	10	8	3	27.3	..
1876.....	13	10	8	5*	38.5	..
1877.....	18	10	6	12	66.7	38
1878.....	11	10	3	8	72.7	35
1879.....	29	10	6	23	79.3	52
1880.....	23	10	4	19	82.6	43

* One of these candidates was appointed Assistant Surgeon, notwithstanding his failure to pass the Board of Examiners. No other instance of the kind has since occurred, and the person thus appointed is not now in the service.

“ The marking adopted has been in accordance with the scale recommended by the Board of Civil-Service Examiners of the Treasury Department in their report, dated January 21, 1873.

“ The scale is as follows :

Best possible.....	100
Extremely good.....	90
Very good.....	80
Good.....	70
Somewhat good.....	60
Indifferent.....	50
Somewhat bad.....	40
Bad.....	30
Very bad.....	20
Extremely bad.....	10
Worst possible.....	0

“ In an average examination, the only branch in which the ‘ best possible ’ may be obtained is, of course, anatomy, but it may be occasionally reached in the answers to certain questions in several branches. In the first four years during which these examinations were held, no examination in the common-school branches was made, but during the last year an oral examination in arithmetic, physics, and history has been added. Proficiency in these branches, together with a ‘ personal history ’ showing the candidate to have had good advantages in schools or experience in hospitals, increases the marking under the heading ‘ general aptitude. ’ This heading is the one most likely to be misinterpreted by the enemies to the system, or by the friends of disappointed candidates, and yet it has been found impracticable to discontinue it. Under this heading are included the preliminary education of the candidate, his health, his personal appearance as to neatness or slovenliness, as well as the general fitness for the service, as shown by examination papers as a whole.

“ The following is given as a specimen of the examination papers,

and shows the scope of the examination. The questions were propounded at the session of the board held in April, 1879:

"Anatomy.—1. Name the bones of the cranium, the foramina at its base, and the structures transmitted through them. 2. Give the origin and distribution of the trigeminal nerve. 3. Describe the regions of the abdomen, and name the viscera contained in each. 4. Name the parts divided in a circular amputation of thigh at middle of Scarpa's triangle.

"Physiology.—1. Give the histology and function of the kidneys. 2. How is the nutrition of muscular tissue effected? 3. Give the normal constituents of bile, blood, and gastric juice. 4. Give functions of sympathetic system and spinal cord.

"Chemistry.—1. Describe the atom and molecule, and state what is meant by atomic weight and molecular weight of element. 2. Give the chemical reaction that occurs in an active galvanic battery composed of carbon and zinc plates, and the fluid made by dissolving bichromate of potassium in dilute sulphuric acid. 3. Describe the physical and chemical properties of alum, and give its formula. 4. Mention the different forms of carbon, and give brief description of each, and name the most important combinations of this element.

"Practice of Medicine.—1. Describe the process of inflammation. 2. Give briefly the symptoms and treatment of cerebro-spinal fever. 3. What are the causes of anasarca? 4. Give differential diagnosis between eczema, herpes, rupia.

"Hygiene.—1. Give briefly your views as to the best method of lighting, heating, and ventilating hospital wards. 2. Assuming that the water supply of a hospital contains matters deleterious to health, what method would you use to discover the impurities, and to eliminate them? 3. What, in your opinion, are the necessary articles, and proper proportions of the same, for a hospital ration? 4. What are the principal substances used as disinfectants and deodorizers, and what is their mode of action?

"Surgery.—1. Give the causes of compression and concussion of the brain, and their differential diagnosis and treatment. 2. What are the causes of popliteal aneurism? 3. Describe the treatment of compound comminuted fracture of the leg. Give the best method of management, and the possible dangers of the injury. 4. Mention the symptoms, complications, and treatment of penetrating wounds of the chest and of the abdomen.

"Obstetrics.—1. Describe the foetal circulation, and the changes taking place therein, at birth. 2. Give the causes and treatment of post-partum hæmorrhage. 3. Give the causes, symptoms, and treatment of puerperal convulsions. 4. Give the differential diagnosis between abdominal tumors, spurious and true pregnancy.

"One day is devoted to clinical examinations at a hospital; which, with an oral examination, concludes the exercises."

DEATH FROM CHLORAL.—"The British Medical Journal" records another death through the careless self-administration of hydrate of chloral. The victim was the widow of an admiral in the navy. The servant who accompanied her home from the house of a friend saw her place a bottle on the mantel-shelf, at the same time exclaiming, "I am dying; I have taken *fourteen* doses!" The preparation was found to be a patent medicine known as "Hunter's Solution of Chloral." There was no evidence of premeditated suicide. In addition to the verdict of accidental death the coroner's jury recommended that restrictions should be placed upon the sale of patent medicines that may be used as poisons.

THE MORTALITY REFERABLE TO ALCOHOL.—At the end of a long and carefully prepared report recently drawn up by a Committee of the Harvian Society, it is concluded that there is, upon the whole, reason to think that, in the metropolis, the mortality among any considerable group of intemperate persons will differ from that generally prevailing among adults in the following important particulars: viz., a fourfold increase in the deaths from diseases of the liver and chylipoietic viscera; a twofold increase in the deaths from disease of the kidney, a decrease of half as much again in those from heart disease, a marked increase in those from pneumonia and pleurisy, a considerable increase and an earlier occurrence of those from disease of the central nervous system; a marked decrease in those from bronchitis, asthma, emphysema,

and congestion of the lungs, a decrease nearly as great in those from phthisis, and a later occurrence, or at least termination, of the disease; a very large decrease in those from old age, with an increase in those referred to atrophy, debility, etc., and the addition of a considerable group referred in general terms to alcoholism or chronic alcoholism, or resulting from accidents.—*British Medical Journal*.

SHEARING OR MOLDING OF THE FETAL HEAD IN ITS MEDICO-LEGAL ASPECTS.—Dr. W. J. Simpson ("Edinb. Med. Jour.," Dec., 1882, p. 515) states that the ordinary shape of the fetal head while in the uterus is ovoid. This is ascertained from Cæsarean sections, and from breech deliveries, when the head is only a short time in the pelvis, and is not subjected to pressure for a long period of time. The changes which occur in the shape of the head after face and head presentations are due to alterations in the relations of the bones to one another, and are, therefore, additional to what may be produced by the ordinary caput succedaneum. Hence, examination of the head will enable one to say whether the cephalic or the podalic end of the child was born first. The following propositions are submitted: 1. That in the configuration of the foetal head certain information may be gained concerning the labor which may be useful in confirming or refuting the statements of the accused, and in enabling the medical jurist to arrive at an opinion as to the probable cause of death, where the lung has been partially expanded. 2. That no medical report on a newly born child is complete which does not state the external form and appearances of the head, with special bearing on the moldings it has undergone during the labor.

EPIDEMICS AND THE CLOSURE OF SCHOOLS.—In a paper read before the British Medical Association ("Brit. Med. Jour.," Sept. 30, 1882), Dr. H. Page speaks of public and private schools as centers of infection during the prevalence of zymotic diseases, and states that experience has shown that the great preventive measure consists in their closure. An illustration of this is given in the case of an epidemic of scarlet fever which appeared in a certain English parochial district in 1878. From its outbreak to its termination the following facts were elicited: Before the closure of the public elementary schools there were, of known new cases 121, of infected houses 85, of deaths 25. During the period of closure there were, of known new cases 36, of infected houses 34, of deaths 13. After reopening there were, of known new cases 143, of infected houses 84, of deaths 45. The schools were closed only one month, and at the end of that time the health officer was unable to obtain an extension. The effect of reopening too soon is apparent. He proposes to place school sanitation on a satisfactory footing, by an amended health act, and a reorganization of the sanitary service, upon the following basis. [The principles will apply equally well to all countries.] 1. That school (and all other) health matters be under the jurisdiction of the Health Department and local sanitary authorities only. 2. That universal notification of the seven principal zymotics, to the medical officer of health, be compulsory on the part of both the medical attendant and the householder. 3. That the closure of schools be compulsory when they are acting as centers of infection. 4. That provision of hospitals for infectious diseases be compulsory. 5. That persons suffering from infectious diseases must be removed thereto from houses in which effective isolation is impossible.

A FAVORITE antidote for rattlesnake poison in Mexico is a strong solution of iodine in potassium iodide. Mr. H. H. Croft has tested some of the poison itself with this solution, and finds that a light brown amorphous precipitate is formed, the insolubility of which explains the beneficial action of the antidote. When iodine can not be readily obtained, a solution of potassium iodide, to which a few drops of ferric chloride has been added, can perhaps be used as an antidote to snake poison.—*Times*.

KEASBEY & MATTISON'S light and bulky sulphate of quinine, says "The Quinologist," is always preferred by all druggists who sell the article by the drachm or half-drachm at the counter, as it is so bulky that a drachm looks to the buyer like twice the quantity.

DR. ALEXANDER OGSTON, says the "Medical Times and Gazette," has been appointed to the chair of surgery in the University of Aberdeen.

THE HAMMOND PRIZE.—The American Neurological Association offers a prize of five hundred dollars, to be known as the "William A. Hammond Prize," and to be awarded at the meeting in June, 1884, to the author of the best essay on the "Functions of the Thalamus in Man."

The conditions under which this prize is to be awarded are as follows:

1. The prize is open to competitors of all nationalities.
2. The essays are to be based upon original observations and experiments on man and the lower animals.
3. The competing essays must be written in the English, French, or German language: if in the last, the manuscript is to be in the Italian handwriting.
4. Essays are to be sent (postage prepaid) to the Secretary of the Prize Committee, Dr. E. C. Seguin, 41 West Twentieth Street, New York City, on or before February 1, 1884; each essay to be marked by a distinctive device or motto, and accompanied by a sealed envelope bearing the same device or motto, and containing the author's visiting-card.
5. The successful essay will be the property of the association, which will assume the care of its publication.
6. Any intimation tending to reveal the authorship of any of the essays submitted, whether directly or indirectly conveyed to the committee or to any member thereof, shall exclude the essay from competition.
7. The award of the prize will be announced by the undersigned committee, and will be publicly declared by the President of the association at the meeting in June, 1884.
8. The amount of the prize will be given to the successful competitor in gold coin of the United States, or, if he prefer it, in the shape of a gold medal bearing a suitable device and inscription.

Signed, { F. T. MILES, M. D., Baltimore,
J. S. JEWELL, M. D., Chicago,
E. C. SEGUIN, M. D., New York.

THE POLYCLINIC.—One hundred and two physicians were studying in the various classes at the New York Polyclinic within the first three months of its existence, and over two thousand patients had been presented to them for examination and treatment.

A RECEPTION TO THE PRESIDENT AND VICE-PRESIDENT OF THE AMERICAN MEDICAL ASSOCIATION.—Dr. John V. Shoemaker, the editor of the "Medical Bulletin," lately gave a reception at his house, in Philadelphia, in honor of Dr. John L. Atlee, of Lancaster, Pa., and Dr. Alexander G. Stone, of St. Paul, Minn., the former the President and the latter the Vice-President of the American Medical Association. A great number of well-known members of the profession were present, not only from Pennsylvania, but from several of the neighboring States, and the affair is said to have been very brilliant.

DEATH OF DR. LAFAYETTE RANNEY.—On the 15th inst. Dr. Lafayette Ranney died, in consequence of a renal affection, in the sixty-fourth year of his age. Dr. Ranney was graduated at the Medical Department of Dartmouth College in the year 1845. For many years he had been a practitioner in New York. He was formerly connected with the medical department of the police service, and was highly esteemed by the legal profession as an adviser in matters involving medical questions.

ARMY INTELLIGENCE.—*Official List of Changes of Stations and Duties of Officers of the Medical Department, United States Army, from February 10, 1883, to February 17, 1883.*—BROWN, JOSEPH B., Lieutenant-Colonel and Surgeon. Detailed as member of board for examination of assistant surgeons for promotion and candidates for admission into the Medical Corps, U. S. Army, to convene at New York City on March 1, 1883. Par. 1, S. O. 35, A. G. O., February 10, 1883. — CLEMENTS, BENNETT A., Major and Surgeon. Detailed as member of board for examination of assistant surgeons for promotion and candidates for admission into the Medical Corps, U. S. Army, to convene at New York City on March 1, 1883. Par. 1, S. O. 35, A. G. O., February 10, 1883. — JANEWAY, JOHN H., Major and Surgeon. Detailed as member of board for examination of assistant surgeons

for promotion and candidates for admission into the Medical Corps, U. S. Army, to convene at New York City on March 1, 1883. Par. 1, S. O. 35, A. G. O., February 10, 1883. — TOWN, FRANCIS L., Major and Surgeon, is relieved from duty at Fort Walla Walla, and will report to the commanding officer, Vancouver Barracks, for duty as Post Surgeon. S. O. 7, Department of the Columbia, January 27, 1883. — WOODWARD, J. J., Major and Surgeon. The extension of leave of absence on account of sickness granted October 6, 1882, is further extended six months on account of sickness. Par. 9, S. O. 34, A. G. O., February 9, 1883. — DE LOFFRE, AUGUSTUS A., Captain and Assistant Surgeon. Relieved from further duty in this department. S. O. 28, Department of the Missouri, February 5, 1883. — NEWTON, R. C., First Lieutenant and Assistant Surgeon, is relieved from duty at Fort Cummings, New Mexico, and will proceed Fort Sill, Indian Territory, and report to the commanding officer for duty. S. O. 28, Department of the Missouri, February 5, 1883.

OFFICERS OF THE MARINE-HOSPITAL SERVICE.—The following official list of medical officers and acting assistant surgeons of the United States Marine-Hospital Service, with their stations, February 1, 1883, has been furnished by the Treasury Department: *Supervising Surgeon-General*—John B. Hamilton, Washington, D. C. *Surgeons*—P. H. Bailhache, Washington, D. C.; John Vansant, San Francisco, Cal.; W. H. Hutton, Louisville, Ky.; T. W. Miller, Chicago, Ill.; Walter Wyman, Baltimore, Md.; W. H. Long, Detroit, Mich.; R. D. Murray, Memphis, Tenn.; * C. S. D. Fessenden, St. Louis, Mo.; George Purviance, Boston, Mass.; H. W. Sawtelle, New York, N. Y.; H. W. Austin, Cincinnati, Ohio; J. M. Gassaway, Philadelphia, Pa.; Henry Smith, Norfolk, Va. *Passed Assistant Surgeons*—G. W. Stoner, Portland, Maine; J. C. Fisher, Washington, D. C.; John Godfrey, New Orleans, La.; C. B. Goldsborough, Mobile, Ala.; Fairfax Irwin, Wilmington, N. C.; F. W. Mead, Port Townsend, W. T.; H. P. Cooke, Galveston, Texas; H. R. Carter, Memphis, Tenn.; † W. H. Heath, Buffalo, N. Y. *F. D. Porter, Charleston, S. C. Assistant Surgeons*—F. J. O'Connor, Detroit, Mich.; John Guitéras, Key West, Fla.; W. A. Wheeler, Chicago, Ill.; J. A. Benson, Cairo, Ill.; C. E. Bangs, Portland, Oregon; D. A. Carmichael, Pittsburg, Pa.; S. T. Armstrong, New Orleans, La.; P. H. Bennett, Boston, Mass.; C. T. Peckham, New York, N. Y.; R. P. M. Ames, Evansville, Ind.; S. C. Devan, San Francisco, Cal.; F. M. Urquhart, St. Louis, Mo.; P. C. Kalloch, New York, N. Y.; H. W. Yemans, Sitka, Alaska. *Surgeon (retired)*—T. J. Griffiths, † Louisville, Ky. *Acting Assistant Surgeons*—J. M. Allen, Milwaukee, Wis.; W. A. Banks, Rockland, Maine; H. G. Bates, Newbern, N. C.; B. F. Beebe, Cincinnati, Ohio; A. D. Bevan, Chicago, Ill.; R. D. Bibber, Bath, Maine; J. E. Bready, Dubuque, Iowa; J. B. Brewster, Plymouth Mass.; G. B. Case, Cleveland, Ohio; S. B. Conover, Philadelphia, Pa.; W. A. Cox, Pascagoula, Miss.; Byron DeWitt, Oswego, N. Y.; A. W. Fisher, Toledo, Ohio; J. P. C. Foster, New Haven, Conn.; T. L. Gelzer, Escanaba, Mich.; L. P. Gibson, Little Rock, Ark.; A. H. Glennan, Baltimore, Md.; W. M. Griffiths, Louisville, Ky.; A. C. Hamlin, Bangor, Maine; G. A. Harding, Sault Ste. Marie, Mich.; W. H. Heard, Newport, Ark.; B. S. Herndon, Fredericksburg, Va.; H. S. Hersey, Bismarck, Dak.; R. C. Hodges, Indianola, Texas; L. W. Hodgkins, Ellsworth, Maine; S. B. Hunter, Machias, Maine; R. W. Johnson, Baltimore, Md.; J. M. Kercheval, Nashville, Tenn.; Samuel Kitchen, East Saginaw, Mich.; H. E. Mereness, Albany, N. Y.; J. D. Mitchell, Jacksonville, Fla.; P. H. C. Noble, Richmond, Va.; Charles Otilie, La Crosse, Wis.; T. T. Price, Tuckerton, N. J.; S. D. Robbins, Vicksburg, Miss.; S. H. Sears, Newport, R. I.; Elmer Small, Belfast, Maine; W. N. Smart, Grand Haven, Mich.; A. E. Spohn, Corpus Christi, Texas; J. G. Stanton, New London, Conn.; Theodore Starbuck, Fernandina, Fla.; W. D. Stewart, Vineyard Haven, Mass.; J. M. Stuart, San Francisco, Cal.; G. H. Stone, Savannah, Ga.; D. H. Strickland, Erie, Pa.; Joseph Taylor, Shreveport, La.; W. H. Taylor, New Bedford, Mass.; A. S. Tebbis, Marquette, Mich.; J. H. Vandeman, Chattanooga, Tenn.; M. F. Wentworth, Portsmouth, N. H.; C. A. Wheaton, St. Paul, Minn.; R. C. White, Pensacola, Fla.; J. E. Wood, Elizabeth City, N. C.; J. B. Crowley, Gallipolis, Ohio.

* On leave.

† Temporary.

‡ Consulting Surgeon, Louisville Marine Hospital.

Lectures and Addresses.

AN ABSTRACT OF THE PRESIDENT'S ADDRESS,

DELIVERED BEFORE THE NEW YORK ACADEMY OF MEDICINE,
FEBRUARY 1, 1883.

By FORDYCE BARKER, M. D., LL. D., ETC.

(Concluded from page 198.)

The discussion of the papers is free and open to all, but the time of the Academy is too valuable to be taken up in listening to the crude, impulsive, badly arranged outbursts of the moment. In these discussions we wish to bring out those who are competent to give us the result of their careful study, their mature experience and deliberate judgment, those who have formed distinct opinions, and can clearly state the mental processes by which they have arrived at their opinions. Partly to prevent waste of time, but chiefly to secure discussions of a high character, I have been in the habit of calling upon those whom I have believed, from the character which they had acquired in the profession, to be the most competent to add something to the knowledge and thought of the special topic of the evening. But I am fully aware of the objections and difficulties which may be urged against this course, and shall be most thankful to any one who will suggest improvement on this plan. One objection of great force is that it is impossible for any one to know, either personally or by reputation, all who are specially qualified, and false modesty may prevent some who would add greatly to the interest of the discussion, because they are not called out by the Chair. This would be particularly liable to occur in the case of young men, who have not yet had the opportunity to make themselves known to the profession, but who might be far in advance of the elder speakers in knowledge of the subject of the evening, as the latter are engaged in active practice, and may not have had time to keep up with the rapid progress in all departments of medicine. My own experience has been that from this class I learn the most; it is from them that I get the most useful knowledge and the most valuable suggestions. I hold it to be one of the great missions of this Academy to bring out and develop, by its library and its scientific work, the young men who are to take care of its interest and give the stamp of character to the Academy and the medical profession of this city in the future. I do not hesitate to express the belief, based on a rather extensive acquaintance with the profession in other cities and in other countries, that the number of young men of bright intellects, of noble zeal, who have had the largest opportunities at home and abroad for a thorough and complete education, which have been most conscientiously improved, is greater than has ever before been aggregated in any city in any age of the world, and that twenty years hence New York will have a galaxy of distinguished men who will give the medical profession such prominence with the public and with the profession elsewhere as has never before been attained. Some weeks ago I had a paragraph printed on our notice cards, asking that

any one willing to take part in the discussion of the paper to be read before the Academy would kindly send me a note, giving his name. This would insure his being called up by the Chair, and would relieve him from the embarrassment of modesty. Still, I wish it distinctly understood that those competent to speak to edification will always be gladly listened to, even though the Chair, from ignorance or oversight, fails to call them out.

The mental activity of the profession in this city has been wonderfully developed, and its contributions to our literature have wonderfully increased, since the organization of the Academy. The number of medical works by New York authors in the fifty years from 1800 to 1850 was 109. In the ten years from 1850 to 1860 New York writers published 65 medical works. From 1860 to 1870 the number was 69, and from 1870 to 1880 the number is 102, the whole number in the last thirty years being 236. To this it should be added that New York writers have also, in this period of thirty years, contributed, according to the most accurate estimates that I can obtain, at least 25,000 pages to the periodical medical literature of the country.

I think that we have no cause for anxiety in regard to the scientific work of the Academy in the future. But the great need of the Academy, in order that its full mission may be accomplished, is that it should be placed on such a financial basis as will secure it the means of doing all its important work in preserving its library by binding, which is absolutely necessary for the preservation of its periodical literature, and the thousands of precious pamphlets absolutely essential, that the profession may have ready access to its complete literature on every topic pertaining to medicine in all its branches, keeping up our circulating and journal department to the requirements of the present high standard, and meeting the demands of the future. The profession have contributed so liberally, in proportion to their means, within the past four years, to accomplish what has already been done, which is equally of benefit to the public and to the profession, that I have not the assurance at present to ask for more for this purpose, as I feel well assured that it will be voluntarily offered as duty prompts and circumstances will permit. But I do ask all to join in hearty co-operation to secure the necessary addition to our funds during the present year to make certain the accomplishment of the foregoing important ends. No city has a greater accumulation of individual wealth than New York; none has greater liberality when properly appealed to, and the intelligence and judgment are convinced of the justice and necessity of the appeal. This has been amply shown in its liberal provision of hospital accommodation for the sick poor, and in numerous other directions. But it has done little for the profession on which it relies for the preservation of its health and lives, and I am convinced that this is simply because the necessity and motives for giving such aid have never been laid before it. Its liberality has consequently never taken this direction. In the continental countries of Europe such an organization as ours would be effectively assisted by appropriations from the State. In Great Britain it would be stimulated to active work and

aided by liberal contributions from private individuals. Some of us have seen the noble hall of the Royal College of Physicians in London, and read with a thrill of interest the tablets on its walls, which commemorate the names of noblemen, commoners, and physicians who have contributed large sums for the purpose of building the hall and placing the college on a solid financial basis. The comparatively small city of Edinburgh, which does not hold even a secondary position as a place of wealth and commerce, ranks, as a city of literary and scientific ability, of eminence in the learned professions of divinity, medicine, and law, and of educational advantages, as one of the first in the world. Last summer I visited its new infirmary, an immense pile of buildings of considerable architectural merit, in which the famous medical department of the university finds a home, with every convenience as to room and equipment which a school of such rank demands at the present day to keep up its former prestige and reputation. It is not yet quite finished, but the sum already expended, if I am not mistaken, is now more than a million of dollars, all of which has been voluntarily contributed by the public-spirited citizens of Scotland. In New York, medical colleges are built, owned, and supported by its profession, and receive no aid from the public, except when an equivalent in the form of a mortgage is returned. The most enthusiastic admirers of Boston do not profess to believe that it is a larger city, or that it has more wealth, or more liberality, or more public spirit than New York. Yet the new building of the medical department of Harvard University is now rapidly approaching its completion, the most expensive and the most perfect of its kind that has yet been built in this country, at a cost, including the land, of nearly three hundred thousand dollars, contributed by private individuals. All this is for the advantage of elementary medical education. Can any one doubt that, if the matter was properly and judiciously brought to their notice, there are many of our citizens who would be glad of the opportunity to give the requisite sum for the higher purposes of this Academy to place it on such a financial basis as would enable it to carry out effectually all its noble purposes. In looking over the "Annuaire de l'Académie de Médecine" of Paris, I find that ten of its pages are filled with an account of the bequests that the institution has received. The copy which I have is for the year 1876, and I find that the amount of legacies which it has received from the date of the organization of this academy to that year is over fifty-six thousand dollars. Some of the donors were medical men, others were laymen, and some ladies appear in the number. I would suggest that hereafter, in our publication of the charter, constitution and by-laws, and list of Fellows, the names of our benefactors and a list of all bequests should appear, that thus they may be kept in perpetual memory by the Fellows of the Academy.

In conclusion, may I express the hope that we feel that our duty to the Academy is a duty that we owe to our profession, that its prosperity and usefulness, and its good and active work, may continue to advance, and that the motto of our loving cup may always be a controlling sentiment with us, "May peace and love be multiplied unto us."

ABSTRACT OF THE CARTWRIGHT LECTURES ON THE RELATIONS OF MICRO-ORGANISMS TO DISEASE.

DELIVERED BEFORE THE ALUMNI ASSOCIATION OF THE COLLEGE OF PHYSICIANS AND SURGEONS, NEW YORK,

By WILLIAM T. BELFIELD, M. D.,
CHICAGO.

LECTURE I.

(*Concluded from page 199.*)

It seemed to the author that the substitution for this method of one which he would proceed to describe would hasten the solution of many problems now involved in obscurity, and would tend to avoid much confusion which at present existed with regard to this subject. The only means by which an organism in a culture could be shown positively to be the progeny of that which had first been transplanted was, that it must have been observed to proceed from it by continuity of structure, and this could only be done by direct observation under the microscope. The method to which he alluded was that introduced three years ago by Koch, and consisted in the substitution, for a liquid vehicle for the nutrition and cultivation of the organism, of a solid material. A solution of gelatin, or beef extract, or peptone, or other material, according to the species of bacteria which it was desired to cultivate, was sterilized and spread upon a disinfected slide, and allowed to dry. A heated needle was then dipped into the material containing the bacteria and drawn lightly over the substance upon the slide, by which a scratch was made, to the edges of which the bacteria adhered. The slides were then placed in the incubator. The liabilities to error in this method consisted in the difficulty of thoroughly sterilizing the culture solid, and the danger of other organisms being planted with the one experimented upon. But by this means it was possible to observe the growth by continuity of the organism in successive cultures, in transferring it to a second and a third slide, and so on, multiplying it indefinitely. By this method alone were we able to demonstrate that an organism injected into an animal from the tenth or the hundredth culture was structurally the same as the organism taken from the animal which had suffered from the disease in which the original bacterium had been found.

Dr. Belfield then described the method of observing the bacteria under the microscope, and the best instruments for that purpose.

Before discussing the relation of bacteria to the body in disease, the speaker referred to their relations to the animal in health and after death. It had been a widely disputed question as to whether bacteria ever occurred in the animal in a perfectly healthy state, the affirmative view having been taken by Billroth and some others, but it was denied by Koch, by Pasteur, and by Ehrlich, who stated that they had never detected bacteria in the healthy animal. The failure of putrefactive bacteria to reproduce themselves in healthy tissue, according to experiments referred to, would go to show inability to struggle against the normal cells indigenous to the soil upon which they were planted. Some bacteria showed power of existence only in tissue in which

vitality had entirely ceased, while others seemed to possess the power of existence in the presence of the animal cells when the latter suffered from impairment of nutrition and the tide of life was turning against them. Abnormal composition of the blood seemed to favor the development of some bacteria after they had found their way into the tissues. An illustration of this fact was seen in diabetes, where there was a tendency to the formation of abscesses, carbuncles, etc., which were found to contain micrococci in abundance.

Dr. Belfield then discussed the question as to the possibility of the bacteria gaining access to the system except by way of solution of continuity of tissue, and reached the conclusion that the answer depended at the present time altogether upon what might be considered a solution of continuity of tissue; certainly a gross lesion, one sufficiently large to strike the attention of the naked eye, was not required. This was also evident in the case of other animals, as the trichina, which found its way from the intestine into the muscles. Any one familiar with the structure of the alveoli of the lungs could readily conceive how such small particles as bacteria could with facility gain access to the circulation in those organs.

One of the most important questions in pathology at the present day was with respect to what extent the different species of bacteria which were to be found in the human tissues during certain morbid conditions were to be considered the cause of the conditions with which they were respectively associated. Admitting the causal relation of the bacterium to the disease, we must be convinced, the speaker said, that all the observed phenomena could be reconciled with this assumption, and also that they could not be so plausibly explained by any other assumption. Then the assumption must be demonstrated by successive cultures of the bacteria found to exist in the diseased person, and the induction of the same disease in healthy animals by inoculation with a reproduction of the bacteria. According to this standard, the evidence already brought forward warranted the following unscientific, but convenient classification:

First, diseases the demonstration of the bacterial origin of which had been completed through inoculation with isolated bacteria by competent observers.

Second, diseases the bacterial origin of which had been affirmed after inoculation with isolated bacteria by one competent observer; such as tuberculosis.

Third, diseases which were always characterized by the presence of bacteria in the tissues, but which had not been induced by inoculation with isolated bacteria; such as pyæmia, diphtheria, erysipelas, etc.

Fourth, diseases in which after death bacteria had been found in the tissues; such as variola, scarlatina, typhoid fever, etc.

Fifth, diseases in which the presence of bacteria before and after death had been asserted, such as syphilis, intermittent fever, typhus fever, measles, etc. In the diseases under the fourth and fifth classes, observations had doubtless been more or less imperfect and inaccurate, partly because of those diseases being found exclusively in man.

Dr. Belfield then exhibited some micro-photographs, in

illustration of the subject under consideration, part of which had been prepared by his own hand, and part obtained from negatives kindly furnished him by Professor Koch.

Original Communications.

TRICHINIASIS IN ITS RELATION TO PUBLIC HEALTH AND NATIONAL ECONOMY.

By FRANK S. BILLINGS, VET. SURG.,
BOSTON.

I.

THE time is coming, if not already at hand, when the people of this country, individually as well as collectively, whether represented by local power or by the central Government at Washington, must take some other course than evasion with reference to the contagious, infectious, and invasive diseases of our domestic animals. The promoters of this work must be the veterinarians, and it is to make this as evident as possible that the writer has consented to contribute a series of papers to this journal. If in some way the author appears too prone to polemic writing, and to criticise the action of Government officials, it must be borne in mind that the disease is deeply seated, and nothing but deep excision of the ulcer which disgraces our Government can lay open to the public its full nature.

There is no disease of our domestic animals which more fully illustrates the points which we desire to emphasize than trichinosis of swine, and none which more imperatively demands our attention at present, as shown by the action of the French government a year or so since, and the very recent action of that of Germany, by which American pork is forbidden entrance into that country as an article of food.

Of all the diseases of our domestic animals which bear any relation to the public health, trichinosis of swine enjoys the most sensational reputation, to be exceeded, perhaps, in the not distant future, by tuberculosis of the milch-cow.

According to Heller,* the history of this disease may be divided into three periods, the first beginning with the observation of the capsule of the parasite in the human muscle, the parasite itself not being discovered, in 1821, by Hilton, of Guy's Hospital, London.

The second marks the discovery of the parasite in 1835, and its description by Owen, who gave it its name, trichina spiralis, on account of the position it almost invariably assumes when encapsulated; this period includes that of the establishment of the connection between the disease of man and that of the hog, which took place in 1860.

From 1860 begins the third period, or that of scientific research after the primary cause of the disease; or, in other words, from what source do the hogs chiefly derive the parasite, a question still unsettled, the solution of which we hope is an honor remaining for some fortunate American observer.

In the mean time it was the fortune of Professor Leidy,

* Von Ziemssen's "Handbuch," B. iii.

of Philadelphia, to discover the parasite in the muscles of the hog in 1867.

The principal workers in this field of research have been mostly Germans; the names of Owen, Cobbold, Britowe, and others, of Britain, must not be forgotten, though the chief honors belong to Leuckart, Zenker, Küchenmeister, and the veterinarians Gerlach and Fürstenburg, of Germany.

Cobbold* describes this parasite as follows: "*Trichina spiralis* is an extremely minute nematode helminth, the male, in its fully developed and sexually matured condition, measuring only one eighteenth of an inch, while the perfectly matured female acquires a length of one eighth of an inch; body rounded and filiform, usually found slightly curved on itself, rather thicker in its anterior than posterior portion, especially in males; head narrow, finely pointed, unarmed, with a simple central, minute oval aperture; posterior extremity of the male furnished with a bilobed caudal appendage; the cloacal, or anal aperture, being situated between these divergent appendages; penis consisting of a single spicula, cleft above, so as to assume a V-shaped outline; female stouter than male, bluntly terminating posteriorly, with genital outlet placed forward at about the end of the anterior fifth of long diameter of the body; eggs measuring $\frac{1}{1270}$ of an inch from pole to pole; mode of reproduction, viviparous."

"The shellless ova develop into minute embryos immediately on fructification, completely fill the uterus of the female, and are born in immense numbers. The embryos measure, before birth, about 10 micrometres in length and 5.6 in transverse diameter. The study of the structure of the embryos is almost impossible so long as they are retained within the body of the maternal parasite. Here it resembles a delicate thread having a somewhat granular appearance, which becomes less distinct as development progresses. In the older embryos—extra maternal—we may perceive a very delicate cuticle and an axial line running through the body; the extremities of the body are more or less blunt, and not easily to be distinguished as to which is the anterior and posterior end of the parasite."†

The posterior extremity possesses more rigidity than the anterior, and also seems to possess the ability to move backward and forward. The rigid condition of the anterior terminal end of the embryo corresponds with the situation, or limits of the axial line, which is looked upon as the rudimentary alimentary canal. The anterior portion of the embryo is not granulous, but clear, being only modified by a delicate chitin thread, which is continuous with the cuticle, and constitutes the first indication of the chitinous lining of the oral cavity. As development progresses, this axial line divides into two parts: the anterior portion corresponds to the so called "cell-body" of the mature parasite, and the posterior to the stomach, intestines, etc. The sexual organs can not, as yet, be distinguished." The embryo may be met with, not only in the abdominal cavity of the autosite, but also in the thoracic cavity and pericardial sac, and in

such numbers that these places may be looked upon as normal resting-places of the embryos in their migrations over an infected organism.

In general, we find them far more numerous represented in the abdominal cavity, which exactly corresponds with our knowledge of the activity, for it is here that they must first arrive, after passing the intestinal parasites, on their migrations; from here they pass on to the other cavities by means of the natural openings, osteos, through which the œsophagus and large vessel pass the diaphragm. These vessels are surrounded by loose connective tissue, which offers conditions favorable to the passage of the parasites. From these cavities the embryos follow the course of the large vessels and nerves over the body, the loose connective tissue surrounding them offering favorable conditions to their migration. The duration of the migratory period can not be determined with any positive degree of accuracy, but is undoubtedly very short, as embryos have been found in the thoracic cavity, the pericardial sac, and adjoining muscles as early as in the abdomen. The majority of observers seem to agree in considering the ninth or tenth day of invasion as marking the termination of the migratory period, i. e., when but a single invasion of an organism has taken place. The embryos display no distinguishable changes, either in size or structure, during the periods of migration. The first appreciable changes occur after they have reached the muscles and have become lodged in their fibers.

When they have penetrated the muscle fiber, i. e., become intra-sarcolemmatous, the protoplasm of the fiber undergoes certain pathological changes which exactly correspond to the fatty degeneration observed in parenchymatous myositis. A proliferation of the nuclei is quite common, if not an invariable phenomenon. Like all tissues which have undergone fatty degeneration of their plasma, such fibers are darker, less refracting, than those which have not been subjected to parasitic invasion. Such fibers lose their contractility; when cut transversely, the swollen parenchyma extends beyond the sarcolemmatous sheath; and, if a trichina be near the section, it often extends or becomes free, with the protruded plasma. It is doubtful whether the trichinae live upon the elements of the plasma, as they are, while lodged within the fiber, in an apparently chrysalis condition. This fatty degeneration of the parenchyma seems to offer no impediment to a second invasion of the fiber.

While previous to migration the embryo shows a somewhat slender form, it now assumes a thicker or more rotund form, its transverse diameter being nearly double that which it possessed before migration. Its anterior portion becomes more slender, and resembles that of the mature parasite. The posterior end becomes more blunt. Progressive changes also take place in the axial line, the various organs becoming distinctly marked; especially is this the case in the cell-body. The primitive sexual gland is to be seen as an elongated sac; the pointed anterior end extends beyond the stomach in the females, and turns abruptly backward in the males. The oral cavity has a proportionate length, and over its middle shows distinctly the first traces of a nervous system, which, in the form of an oval enlargement—cer-

* "Eutozoa," p. 335.

† Leuckart, "Die menschlichen Parasiten," vol. ii, p. 572.

vical ganglion—is to be distinguished from the cylindrical mass.

With the progressive development of the internal organs a corresponding increase of the external dimensions of the parasite takes place; it increases more in length than thickness, its previous rotund form becoming more slender; at the same time the body becomes curved, and after a while assumes an irregular spiral position—"Trichina spiralis." Those situated in the larger fibers are the first to assume this position, but it occurs in all in course of time, even when the diameter of the fiber scarcely exceeds that of the parasite. The sarcolemmatous sheath of the fiber invariably becomes distended in the vicinity of the parasite. The spindle shape of the tube is due to the elasticity of the sarcolemma; but, as it becomes thicker and clouded, proliferation of its elements must also take place. The intra-sarcolemmatous, or capsular, development of the parasite terminates in about three weeks from the time of the invasion of the fiber.

The distensions of the sarcolemma vary much in form and size; sometimes they are far more cylindrical and elongated than at others, or one end may be elongated and the other obtusely rounded.

The capsules are surrounded by a rete of capillaries, which can be injected; an increase in length and thickness, due to the irritation caused by the parasite, gives them a very ramified character.

In this condition the parasites are known as "muscle trichinæ"; but, when living, or found in the intestines of an autosite, as "intestinal trichinæ." "Muscle trichinæ" have always been said to be confined exclusively to striated or motory muscles, the flesh, and not, in an encapsulated condition, in the non-striated muscles, or in adipose tissue.

With regard to finding trichinæ in adipose tissue, several recent observers report having met with them therein, a fact which I can positively assert to be correct from personal observation, as *I found them several times in the midst of the fatty tissue which is to be seen separating the muscle fibers, but never in the adipose tissue which lies upon the muscles*; this fact bears an especial relation to the question of trichinæ in the sides of bacon. In a letter, read at the ninth annual meeting of the American Public Health Association, held at Savannah, Georgia, in 1881, emanating from the Department of Agriculture, dated October 29, 1881, the author, with the customary ignorance and consequent impudence of an American politician, says, in answer to the question, "Are trichinæ found in the fat?" "I have until now thought not. Professor Taylor, of this department, tells me that in the Journal of the Microscopical Association he has recently seen that they have been found in fat. I should rather see than believe without so doing."

The finding of an apparently encapsulated trichina, or trichinæ, in inter-muscular fat-tissue seems to me to be perfectly in accordance with known laws or conditions. The trichinæ were, and still are, intra-sarcolemmatous—that is, within the sheath of the originally invaded fiber, which has, however, lost its recognizable characteristics from atrophy and absorption of its plasma, due to the pressure caused by

the infiltration of fat, leaving nothing but its connective elements behind. I think the trichinæ were present anticipatory to production of fact. The atrophy of the fiber is undoubtedly aided by the fatty degeneration of its plasma, caused by the parasite, which has been previously mentioned.

The encapsulated parasites may be met with in the striated musculature of all parts of the body—such as the digital muscles, those of the abdominal walls, of the extremities, the eye, the ear, the larynx and pharynx, the tongue, œsophagus, the diaphragm; but the heart seems to be a favored locality, for they have only been found in its substance in very isolated cases.

In making examinations of œsophageal muscles of a rabbit that had been fed with infected pork, I was much struck with the abruptness with which I found trichinæ, in passing in review a microscopic section of the œsophageo-cardiac portion of the stomach, where one passed from the fibers proper to the stomach to those of the œsophagus; in fact, trichinæ could be seen in striated fibers of the latter where they intruded between the non-striated of the former, but in no case were there any to be seen in the smooth or inorganic fibers.

Trichinæ are not equally distributed over the musculature of an autosite, but seem to have favorite places of abode, such as the muscles of the anterior part of the body; of these, those of the tongue, larynx and pharynx, and masticatory muscles are especially favored. The muscles of the rump are more profusely invaded than those of the extremities. Very few have been found in the caudal appendage of any animal. In the long muscles of the limbs the parasites are found to be more numerous represented where the fibers begin to lose themselves in their tendinous extension than in the body of the muscle. Numerous calculations have been published by different observers as to the percental invasion of the different muscle groups, several of which are here appended:

Microscopic * specimens of an average length of two centimetres and a width of one centimetre were taken from the flesh of several hogs which had been found trichinous. Eighty specimens from hog No. 1 gave as follows:

a. Pillars of diaphragm.....	12 trichinæ.
b. Muscles " "	4 "
c. " " larynx.....	1 trichina.
d. " " ribs.....	None.
e. " " tongue.....	
f. " " neck.....	
g. " " eye and forearms.....	

Sixty specimens from hog No. 2:

a. Pillars of diaphragm.....	10 trichinæ.
b. Muscles " "	6 "
c. " " larynx.....	2 "
d. " " ribs.....	None.
e. " " tongue.....	
f. " " eye.....	
g. " " forearm and neck.....	

* "Mittheilungen a. d. thierärztlichen Praxis im preussischen Staate," 1877-'78, p. 99.

Forty specimens from hog No. 3:

a. Pillars of diaphragm.....	40 trichinæ.
b. Muscles " "	25 "
c. " " larynx.....	4 "
d. " " ribs.....	6 "
e. " " tongue.....	8 "
f. " " neck, eye, and forearm.....	2 "

Forty specimens from hog No. 4:

a. Pillars of diaphragm.....	40 trichinæ.
b. Muscles " "	30 "
c. " " larynx.....	10 "
d. " " ribs.....	10 "
e. " " tongue.....	6 "
f. " " forearm.....	2 "

According to Gerlach:*

One grain of flesh from the psoas muscles gave	161 trichinæ.
" " " diaphragm " "	129 "
" " " larynx " "	126 "
" " " tongue " "	105 "
" " " orbital muscles " "	64 "
" " " abdominal " "	54 "
" " " masseter " "	45 "
" " " lip, near snout " "	43 "
" " " serratus magnus " "	39 "
" " " pectoralis major " "	33 "
" " " œsophagus anterior to diaphragm gave	31 "
" " " œsophagus posterior to diaphragm gave	31 "
" " " pelvi-femoral muscles gave....	26 "
" " " longissimus dorsi muscles gave....	20 "
" " " tibial muscles gave.	26 "
" " " scapulo - humeral muscles gave....	18 "
" " " radio-ulnar muscles gave.....	17 "
" " " metatarsal muscles gave.....	9 "
" " " intercostal muscles gave.....	8 "
" " " small muscles of ear gave.....	2 "
" " " small muscles of tail gave.....	1 trichina.

Kramer† gives the following as the result of examining one gramme of flesh from different parts of the human being:

One gramme from the biceps	contained 420 trichinæ.
" " masseters " "	213 "
" " genio-glossus " "	188 "
" " gastrocnemius " "	186 "
" " sterno-mastoid " "	171 "
" " pectorales " "	148 "
" " diaphragm " "	129 "
" " crico-thyroid " "	124 "
" " intercostales " "	113 "
" " rectus abdominis " "	106 "
" " psoas " "	105 "
" " tongue " "	58 "
" " larynx " "	21 "

* "Die Trichinen."

† "Deutsche Klinik," July and August, 1872.

Not having any opportunity to make detailed examinations of the muscles of any whole or single hog, I could not obtain any personal observations of the percental dispersion of the trichinæ over the different muscle groups, or parts of any of the hogs I examined. Coming upon a piece of a pillar of the diaphragm which was wonderfully infected, I made the following numerical observation: 0.05 (5 centigrammes) contained at least 50 trichinæ; one gramme would therefore contain 1,000; four grammes, 4,000; a pound, 400,000; and, if we assume the muscles and flesh of a hog to weigh one hundred, its organism—were equal dispersion of the trichinæ possible—would lodge 40,000,000.

The immense multitude of these parasites which may be found infecting a single organism is still more wonderful than their wide dispersion over the same.

Leuckart estimates that, in some of the cases (human) which have come under his observation, a single gramme of flesh lodged from twelve to fifteen hundred, and, assuming the muscles of man to weigh forty pounds, the number of parasites infecting a human body, at such a ratio, would sum up thirty millions.

In Zenker's case (to be noticed later), Fielder calculated that the body of the woman must have lodged some ninety-four millions; and Cobbold assumes that *one hundred millions* of the capsulated parasites may sometimes infect one organism at the same time.

Leuckart again says "that no one who, like himself, had found some sixty trichinæ in ten mmgms. of muscle, would doubt the correctness of the preceding estimates."

In a report of the Chicago Academy of Sciences it was estimated that one cubic inch of pork, examined under their auspices, contained some ten thousand, and that a person consuming the ordinary amount of flesh taken at a single meal would introduce into his system more than one million trichinæ.

Rauch found numerous trichinæ infesting the muscles of a hog; of three hundred microscopic specimens, they were lacking in but three. In some specimens he observed thirty in one focus; in others, but five or six. As in seventy specimens, weighing one gramme, 350 trichinæ were discovered, one pound would lodge 175,000, and one hundred pounds 17,500,000. In many cases the parasites are much less frequently met with, and one has to search through many microscopic specimens before meeting with any, and then only with isolated examples.

When sufficient time has elapsed since the invasion of the muscles and formation of the capsules, the latter may be recognized, microscopically, as small, white specks; such muscles appear as if sprinkled with grains of white salt or sand. The calcification of the capsule begins about the fifth or sixth month subsequent to the invasion of the muscle.

It has been said by some observers that the trichinæ capsules in the hog do not calcify; others assert the contrary. The polariscope, however, reveals the presence of calcareous salts in the capsule, if sufficient time has elapsed since invasion. The reason why they may not be so easily seen as in human flesh must be sought in the influence

upon the salts exerted by the fatty oils of the porcine organism, which renders the crystals less visible.

INTESTINAL TRICHINÆ.

So long as the trichinæ remain encapsuled in the fibers of the muscles, their condition remains unchanged. They make no progress in their development, irrespective of the number of years that they may have been imprisoned. They have been seen in an active condition, i. e., capable of progressive development under favorable circumstances, for thirteen, twenty, and even twenty-four years from the time the invasion was known to have taken place.

a. In 1861 a woman was admitted into the public hospital at Altona, Germany, suffering from a mammary cancer which had been developing some twelve years. On its removal its tissues were subjected to microscopical examination, and trichinæ found infesting its fleshy parts. Upon inquiry, it was ascertained that, in 1856, the woman had resided at Davenport, Iowa, where she was taken suddenly ill, gastric and rheumatic phenomena being the most pregnant of any, together with œdema of various parts, and paralytic symptoms. Her brother, with whom she resided, was attacked in a similar but less severe manner at the same time.

The woman died at the above-mentioned hospital in 1864; an examination of her muscles revealed the presence of great numbers of encapsuled trichinæ. A cat fed with pieces from these muscles died in the course of sixteen days, its flesh being completely infested with the parasites.

b. Virchow reports a case *where, after the lapse of twelve and a half years*, the parasites moved in their capsules after prolonged exposure of the specimens on the microscope to the sun's rays.

c. Klopsch * mentions a case of trichinosis, with complete recovery, which took place in 1842. The parasites were discovered in the muscles of this individual twenty-four years afterward, on the excision of a mammary cancer.

d. Professor Damman, † of the Eldena Agricultural Academy, mentions a very interesting case, illustrating the longevity and tenacity of life possessed by muscle trichinæ, as infecting a hog.

This hog was fed with trichinous meat November, 1864, and in February, 1865, presented to the experiment station at Eldena. Since that time the animal had been kept isolated, unless when it was removed from its pen for examination. On February 3, 1875, and February 12, 1876, Damman removed a small piece of flesh from the muscles of the shoulder; at both times trichinæ were found. A considerable piece of flesh was removed and fed to two rabbits, and eighteen days subsequently their muscles were found to be plentifully invaded with trichinæ. This case demonstrates, beyond all question, the presence of living trichinæ, which were capable of maturing, fructifying, and developing young, when fed to other animals, after a period of eleven and a half years from the time that invasion of the hog took place.

Although the encapsuled trichinæ suffer no changes while confined in the muscles of an autositic organism, yet the introduction of portions of such flesh into the intestinal canal of man, or other suitable autosite, causes rapid changes in their condition. The processes of digestion soon set the imprisoned parasites free from their cell-prisons, three to four hours being sufficient to this purpose; the freed parasites rapidly complete their development and become mature trichinæ, thirty to forty hours answering for this evolution; in cases of fresh invasion, when the capsules have not become dense, twenty-four hours have been sufficient to demonstrate the presence of sexually matured trichinæ in the intestines of animals fed with such flesh by way of experiment; nevertheless, we may often find trichinæ inclosed in their capsules on the third day after feeding infected flesh to an animal. There is scarcely another helminth by which this matured stage is reached in so short a period. Under these circumstances it is self-evident that the changes necessary to maturity must be of a very insignificant nature.

As a rule, sexual connection takes place within two days from the time the trichinæ become free in the intestines of an autosite.

The parasite increases in length and thickness, and with the female we may observe the uterus filled with fructified ova, which soon develop into embryos. The female intestinal or matured parasite lives from five to six weeks, and produces at least fifteen hundred embryos (Leuckart).

The newly born embryos are at first buried in the mucus which lines the intestinal canal; microscopic examination of the same, at this time, will reveal them as free and movable parasites. The embryos soon begin their migration and dispersion over the organism of their host, the first act being penetration of the intestinal parietes. It seems to be still a matter of discussion as to the means or ways by which further migration takes place. Some authors—in fact, all the most eminent—favor the view that the parasites proceed by way of the mesenterium and connective-tissue tracts over the organism, and penetrate the sarcolemma of the muscles.

Another view—the possibility of which, to a minor degree, is conceded by the advocates of the above-mentioned theory—is that the embryos gain access to the circulation, and are transported over the organism by the moving fluid, boring the smaller blood-vessels at convenience, and thus gaining access to the muscles (Thudichum).

Were this the principal path by which trichinæ become dispersed over an invaded organism, we should be able to discover numerous examples in the circulating fluid of living animals that have been subjected to feeding experiments. This is not the case, however. *This sketch of the life of this parasite sufficiently emphasizes the fact that the consumer of meat infected with trichinæ provides the means for his own infection.*

While the consumption of infected flesh is, in general, the manner by which invasion takes place, it by no means excludes the possibility of the infection of an animal taking place by intestinal trichinæ (embryos) which have passed from an already infected organism with its fæces. In this

* Virchow's "Archiv.," vol. xxxv., p. 609.

† "Zeitschrift für pract. Thierheilkunde," 1876, vol. iii, p. 92.

way an infected swine may infect others, or, in fact, give occasion to a secondary invasion of itself, by rooting in the manure of its pen. *In the same way swine may become trichin-infected from human beings that have consumed trichinous pork, when, as is too often the case, the out-houses for the family are placed over the pig-pen, or lead into it, or when the contents of the same are thrown into the pig-pen for the swine to work over.*

Thus, we see the cycle of trichina-invasion may frequently continue from swine to man, and man to swine.

Trichinæ may be assumed to be regular cosmopolitans. Whether Noah took a pair of them with him into the ark is probably an open question. They have been discovered in Germany, England, Scotland, Denmark, Sweden, Russia, France, Italy, North and South America, Africa, India, Austria, Spain, Egypt, and Syria. In fact, it may be said that they have been found infesting pork in whatever land and wherever they have been sought for.

As to their presence in any other animals than man and the hog, they have been found infesting the muscles of the cat, dog, rabbits, rats, mice, the marmot, the wild hog of Europe, and even the hippopotamus. Gerlach has produced invasion in calves and horses, but Leisering's experiments were unsuccessful in the latter. Several reports have been published with reference to the discovery of trichinæ in the flesh of fish and other cold-blooded animals; but they all fail of experimental proof, and are nonconformable to our knowledge of the physiological activities of the parasite, which becomes torpid in a temperature a few degrees below that of the ordinary living mammal.

For some unknown reason they do not seem to be able to invade the flesh of fowls, though some authors claim to have found them in the intestines. A case of trichinosis among some soldiers from eating a goose is reported in the "Philadelphia Medical Times," April 13, 1878, the accuracy of which is very questionable, as pigs are fully as easily stolen as geese, and no evidence exists that a microscopic examination of the flesh of the goose was made.

With regard to the invasion of hens, the following experiments may not be without interest:

1. I fed them with highly infected pork in the natural way. Results: negative; no trichinæ either in the flesh or intestines.

2. Assuming that the trituratory powers of the gizzard might be sufficient to destroy the parasites before they could gain access to the intestines, I caused a quantity of infected pork to be chopped for several hours until it became a veritable mush. Microscopic examination of the same revealed the presence of numerous *living* trichinæ, when heat was also applied. This mass was stirred up with lukewarm water, so that it could be drawn into a coarse syringe; the intestines of several hens were then washed out by warm injections as cleanly as possible, and then several syringefuls of the mass were injected, and the outflow completely stopped by artificial means, which were removed after the lapse of forty-eight hours. Results: negative, though the hens were allowed to live for four weeks.

3. The abdominal cavity of six hens was opened, and two tablespoonfuls of the watery mass, but thicker than that

used for the injections, poured into them; the aperture was then sewed up. The hens drooped for a few days, but recovered, and ate well. Results: negative, though a queer-looking condition of the abdominal cavity was revealed. Why septicæmia did not set in is a mystery to me.

Lack of means, and want of support by the State Board of Health, prevented my carrying on many desirable experiments.

(To be concluded.)

TRANSFUSION IN GAS-POISONING.

By HENRY J. GARRIGUES, M. D.,

NEW YORK.

ON the 17th of February last I was requested by Dr. Ferd. E. Valentine to assist him professionally in the treatment of a case of poisoning with illuminating gas.

A gentleman, forty-two years old, of excellent constitution and of strong build, on retiring in the evening, had blown the gas out, instead of turning it off. The room had the size of an ordinary hall room, and there was only one gas-bracket, placed near the window. The next morning, at six o'clock, a strong smell of gas was noticed in the corridor, and traced to the room occupied by the said gentleman. The door and transom being locked from within, an entrance was made through the window. The air in the room was suffocating; the stop-cock on the gas-fixture was found open; and in the bed the gentleman was found lying unconscious. Dr. Valentine and Dr. James H. Anderson applied hot bottles and mustard plasters to the skin, had the feet rubbed with a stiff brush, made him smell ammonia, and instituted artificial respiration. When I saw the patient, at 8 A. M., he was lying on his back; the face was pale, the conjunctivæ injected, the pupils dilated to the utmost degree and immovable. A well-marked strabismus internus was present. The breathing was puffing—22 per minute. The pulse was barely perceptible at the wrist—108 in the minute. Reflex action was active, but consciousness entirely gone. He frequently ground his teeth. Some subsultus of the tendons was observed, and all the muscles were in a high state of contraction, especially the flexors; The hands were clinched, the arms bent over the chest, and the knees drawn up.

I suggested to bleed the patient and perform transfusion, which being unanimously agreed upon, we proceeded at once to the operation. I took eight ounces of blood from the arm of a strong and healthy young negro. While it ran into a bowl, Dr. Valentine kept beating it with a fork. Next it was strained through a double layer of muslin—a clean pocket-handkerchief—in a tin funnel, and received into another bowl placed in a basin with hot water.

While the blood was being strained, I tightened a bandage above the elbow of the patient. No veins became sufficiently prominent at the elbow, but I could distinctly feel a branch of the basilic a little lower down on the forearm. I made an incision, three quarters of an inch long, through the skin, at an acute angle with the course of the vein, and dissected the adipose tissue off from the vessel. I introduced a probe under it, and bent it at the upper end,

so as to form a hook, preventing the probe from falling. I made a small incision in the vein with a lancet, and evacuated about eight ounces of dark blood. While the blood was flowing, the breathing improved somewhat. When Dr. Valentine reported that the pulse on the other arm became very small, we stopped. Then I introduced the nozzle of the transfusion apparatus, which I constructed and described in 1878 (see "American Journal of Obstetrics," vol. xi, p. 754), into the vein, which it filled entirely. Assisted by Dr. Anderson, I injected very slowly about six ounces of the defibrinated blood. During the injection, which took about three quarters of an hour, the pulse became fuller and sank to 92 per minute, and the breathing, although retaining its frequency, became so natural in character as to resemble that during normal sleep. When we had finished, the patient could be roused sufficiently from his comatose condition to make him swallow some ammoniated water and black coffee; but, as he was yet very sleepy, he was constantly roused by Dr. Valentine, by means of flagellation and the application of the electrodes of a Gaiffe's faradization apparatus, one of which ended in a metallic brush.

Three hours later he was sufficiently aroused to recognize his friends, and even speak a few words. The pupils had become smaller, and responded to light. At the end of the next two hours, consciousness had so entirely returned that Dr. Valentine, who at that time was the only physician present, allowed him to take short snatches of sleep. At half-past seven, pulse and respiration were normal; the patient laughed and chatted cheerfully, and had only a slight headache. As a precaution, he was ordered to be waked up every hour during the night. The next morning he felt perfectly well, except some soreness produced by the divers cutaneous stimulants used on the previous day. His pulse was full, and beat 64 in the minute.

The symptoms were those commonly observed in poisoning by *oxide of carbon*, with the exception of the color of the blood, which in that poisoning is said to be light-colored, like arterial blood. In our case it was dark, as venous blood commonly is. This is probably due to the fact that illuminating gas is carbon *hydrogen*.

I report this case in order to call attention once more to the advantages offered by transfusion. Here it was not a case of acute anæmia which called for the operation, but one of toxæmia. We had to deal with a man who, although somewhat improved by cutaneous stimulation, was yet in a very precarious condition. The mere evacuation of some of the poisoned blood gave some relief, but the effect of the injection of fresh, defibrinated, healthy blood, full of oxygen, was instantaneous, and impressed all of us most favorably.

The operation itself is so simple that anybody who can use a knife and a forceps intelligently can perform it. With a single exception, the implements needed are so common that they are found in every house, or can be procured at the shortest notice. If a funnel is not at hand, the bottom may be knocked out of a wine-bottle, and the upper part used to sustain the cloth serving as strainer.

Only one particular instrument is required besides what

every physician carries, or ought to carry, in his pocket-case, namely, the transfusion apparatus. Most of these instruments are so bulky, fragile, and expensive, that the general practitioner rarely possesses one. It has been suggested that an aspirator might be used; but it is difficult, if not impossible, to keep this instrument so scrupulously clean and aseptic as a transfusion apparatus ought to be. And, like all piston instruments, it has the fault that, as a rule, it does not work when needed. In cities a fine catheter, a piece of rubber tubing, and a small funnel may, perhaps, be obtained in a drug-store; but this is by no means sure, and such a catheter will very likely be found quite difficult to introduce in the small, collapsed vein into which commonly the transfusion must be made.

My apparatus has the advantages of being small, light, and flexible, easy to keep clean, easy to introduce into a small branch of a vein, easy to manage even without skilled assistance, and quite inexpensive. It was originally made by George Tiemann & Co., 67 Chatham Street, who sell it for \$4.00. A chief point in the operation is to inject so slowly that the blood enters the vein merely in a thin stream, or almost drop by drop. After having been used, the apparatus must be taken to pieces, and every part of it scrubbed and disinfected by immersion in a five-per-cent. solution of carbolic acid. When it is to be used again, it suffices to let some clean water go through it before it is used for the blood. All air must be driven out by compressing the bulb entirely; but, when once the whole apparatus is filled with blood, it ought only to be worked by slight compression between the thumb and the index finger.

I am not aware that transfusion has been used before in cases of poisoning; but the striking effect obtained in our case ought to recommend it in similar occurrences.

A CASE OF PAINLESS LABOR IN A PATIENT WITH PARAPLEGIA.

By FRANK W. EPLEY, M. D.,
NEW RICHMOND, WISCONSIN.

On the 12th day of April, 1877, I was called to see Mrs. W., a native of Ireland, mother of ten children, and about forty-three years of age.

In 1864 she had been a subject of hemiplegia, and helpless for several weeks. The attack, however, terminated in ultimate complete recovery, with the exception of a certain mental weakness noticeable to friends.

Upon my arrival, I found a somewhat spare woman, of medium height, moderately well nourished, and of nervous temperament. She was pregnant, had carried to term, and labor had begun at about 6 A. M. of that day. She had felt well, and had dressed herself that morning.

A neighboring physician had been summoned, who, upon his arrival, found that the pains had ceased and all was quiet. Upon interrogating her, he found there had been no movement of the bowels for some time, and, after ordering a cathartic powder of some kind, he went home. Soon after, the husband became satisfied that all was not right, and summoned me. Upon examination, I found at the vulvar opening a flat tumor, dense and firm, occupying the

whole of the inferior portion of the recto-vaginal septum and interfering materially with the subsequent introduction of the forceps. There was no sign of fluctuation, either then or afterward. The os was soft, and opened to about the size of a silver dollar. There was complete paraplegia. I introduced a catheter and relieved the bladder of about two pints of thick, flocculent, ammoniacal urine, and ordered a copious enema, which brought away a large amount of faecal matter, without the least knowledge on the part of the patient that anything was being done, so far as sensations were concerned. I then left the case to nature, and ransacked my library for light upon the subject.

On the morning of April 13th I visited the patient again, accompanied by my friend, Dr. C. F. King. There had been no progress, so far as the labor was concerned, for twenty-four hours. Paraplegia was complete. The patient had not rested or taken food. The abdominal walls were flaccid, the uterus seemed in the same condition, and it was with a good deal of apprehension that we proceeded to effect delivery with the forceps. This was finally accomplished, without, so far as could be detected, the least action of the uterus. As traction was made with the forceps, the uterus and its contents were compressed firmly through the abdominal walls. We had expected hæmorrhage, and we had it, but not to the extent we had feared. After the removal of the placenta, the uterus was held firmly in the pelvic cavity until the hæmorrhage had nearly ceased, when a large compress and firm binder were substituted. The child was still-born.

During the manipulations with the instrument the patient felt no pain except rhythmical grinding pains in the epigastrium; after the delivery, the vaginal tumor was examined, but nothing more was discovered except that it appeared somewhat more enlarged.

The next day, April 14th, the temperature reached 103° Fahr., and on the 16th 104°. The patient had chills and all the symptoms of septicæmia, though the lochia were normal, except that the discharge was slight unless the patient's position was changed. The urine and fæces passed without the knowledge of the patient. The vagina was kept cleansed by injections of a one-to-twenty solution of carbolic acid.

On the morning of April 20th, upon my arrival I was told that "that lump had broke and run awfully." The opening had taken place a little to the right of the median line and just within the vulva, and a probe readily followed a sinus leading up the recto-vaginal septum for a distance of about eight inches, then going to the right of the rectum, terminating in the region of the promontory of the sacrum. This was syringed several times daily with disinfectants, and in due time (about two months) healed. Her temperature became normal, or nearly so.

The paralysis continued, however. Bed sores formed on both hips, and finally over the sacrum. These were very deep and fætid, though perfectly painless.

The lower extremities became very œdematous. On the 22d of August, assisted by my friend and student, Dr. George Jackson, I removed the coccyx and a good share of the now carious sacrum. The patient failed gradually, and died on the 20th of September. No autopsy could be obtained.

Clinical Reports.

WOMAN'S HOSPITAL.

Reported by JAMES R. GOFFE, M. D., House Surgeon.

(SERVICE OF DR. THOMAS ADDIS EMMET.)

TWO CASES OF LACERATED CERVIX UTERI.

CASE I.—Mrs. Annie K., aged twenty-nine, birthplace Ireland, was admitted to the Hospital April 13, 1882. Has been married seven years, and is the mother of four children. Never had a miscarriage. Her first child was born six years ago; labor tedious, continuing for thirty-one hours (was attended by a midwife). Last labor, eighteen months ago. All confinements terminated naturally, i. e., no instruments were used. She has suffered since the birth of first child with "falling of the womb," which has grown worse with each succeeding labor. Has suffered with almost constant leucorrhœa, and during the past two years with imperfect control of bladder. The womb comes "out into the world" when on her feet for any length of time. She menstruated first at the age of fifteen, but only once. Then there was an entire cessation for two years, during which time she was perfectly well. Since the re-establishment of menstruation, the periods have occurred regularly.

On examination, there was found a rupture of the perinæum down to the sphincter ani, an extensive proctocele, and bilateral laceration of the cervix down to the vaginal junction, with so-called elongation of the anterior lip, that snout-like condition so frequently seen. Evidences of old cellulitis were also found in the left broad ligament, causing the uterus to be tilted somewhat to the left side. The patient was immediately put on hot-water treatment with astringent applications, and the uterus was held in place by a cotton-pad.

April 25th.—Dr. Emmet closed the cervix in the following manner: The lips were denuded on each side in the usual way, except that the angle of denudation was extended slightly forward and laterally into the vaginal mucous membrane in such a manner as to make the length of the denuded surface on the posterior lip as long as its corresponding surface on the anterior lip. Silver sutures were then passed, making the point of entrance of each successive suture in the anterior lip exactly the same distance from the angle as its point of exit in the posterior lip. The surfaces were thus accurately approximated, and the last suture on each side necessarily brought the tip of each lip in contact with the tip of the other. By this means, the apparent superabundant tissue of the anterior lip was disposed of and the cervix made symmetrical.

May 4th.—The stitches were removed, and union was found perfect.

May 24th.—Perinæorrhaphy was done, the denuded surface being extended up the rectal wall to an unusual extent for the purpose of relieving the proctocele.

June 1st.—Stitches removed; union complete.

June 12th.—Discharged cured.

The interesting points in the case were the methods of denuding and approximating the lips of the cervix. Dr. Emmet thinks that the so-called elongated anterior lip so often seen is not due to actual increase of tissue in the cervix itself, but to a sort of preputial fold of the vaginal and bladder wall at their junction with the cervix. This he demonstrates by passing a sound into the bladder, and depressing the wall just anterior to the cervix. It is then seen that the distance from the vaginal junction to the extremity of the anterior lip is only normal.

CASE II.—Mrs. Sarah C., aged forty, Ireland, was admitted

to the hospital April 17, 1882, with the following history: Married seventeen years; children, four; miscarriages, five— all since birth of last child, ten years ago. First labor sixteen years ago, severe; ruptured the perinæum. Last labor ten years ago. Commenced with flooding; child extracted with forceps. Menstruated at fourteen; regular; duration five and six days; normal in amount; no pain. For past two years has menstruated every two weeks; very profuse. At times has frequent and painful micturition, lasting several days; at other times does not pass water more than once in twenty-four hours. Bowels confined. Tires easily. Eight years ago had perinæum closed.

Examination disclosed a bilateral laceration of the cervix down to the vaginal junction, with cystic degeneration of Nabothian glands in both lips, and apparent elongation of the anterior lip. She was put at once on the usual routine treatment—hot douches, puncture of the cysts, and iodine applications.

May 9th.—Dr. Emmet closed the cervix, denuding the lips and approximating the surfaces as in the foregoing case. The angle of denudation extended out so far on the vaginal wall that, in passing the sutures, one passed through into Douglas's cul-de-sac. Dr. Emmet remarked that it would entitle the patient to some peritonitis, but the suture was not withdrawn, and the patient, however, had no unusual symptoms.

May 18th.—Left side perfect. Nearly all the stitches on the right side have cut out. These were removed, ether was administered, and the surfaces were again approximated by six sutures.

May 25th.—Sutures removed; edges inclined to roll out along the line on right side; ordered applications of nitrate of silver.

June 1st.—All irregularities smoothed down; cervix symmetrical.

June 8th.—Discharged cured.

The same demonstration of the preputial fold of vaginal and bladder wall was made as in the case above.

Book Notices.

A Dictionary of Medicine, including General Pathology, General Therapeutics, Hygiene, and the Diseases Peculiar to Women and Children. By various writers. Edited by RICHARD QUAIN, M. D., F. R. S., etc. New York: D. Appleton & Co., 1883. Pp. xviii-1,816.

It is seldom indeed that the editor of a variorum work meets with the good fortune to secure so large and efficient a corps of collaborators as are included in Dr. Quain's list, which embraces the following well-known names: Mr. William Adams, Dr. William Aitken, Dr. T. Clifford Allbutt, Dr. W. H. Allechin, Dr. George W. Balfour, Dr. Robert Barnes, Dr. H. Charlton Bastian, Dr. O. G. H. Bäumlér, Dr. Marcus Beck, Mr. Edward Bellamy, Dr. J. Henry Bennet, Sir J. Risdon Bennett, Dr. Carl Binz, Dr. J. Syer Bristowe, Dr. W. H. Broadbent, Dr. C. E. Brown-Séquard, Dr. T. Lander Brunton, Dr. George Buchanan, Mr. H. T. Butlin, Dr. Thomas Buzzard, the late Mr. G. W. Callender, Dr. W. B. Carpenter, Mr. R. Brudenell Carter, the late Dr. J. Lockhart Clarke, Dr. W. Fairlie Clarke, the late Mr. J. T. Clover, Dr. T. Spencer Cobbold, Dr. Alexander Collie, the late Sir John Rose Cormack, Mr. T. B. Curling, Dr. J. Matthews Duncan, Mr. Arthur E. Durham, Dr. M. G. Echeverria, Dr. William Ewart, Dr. Robert Farquharson, Sir Joseph Fayrer, Dr. Samuel Fenwick, Dr. David Ferrier, Dr. Balthazar W. Foster, Dr. E. Long Fox, the late Dr. Tilbury Fox, Captain Douglas Galton, the late Mr. George G. Gascoyen, Dr. Samuel Gee, Dr. Rickman J. God-

lee, Dr. Clement Godson, Dr. W. R. Gowers, Dr. T. Henry Green, Mr. J. Warrington Haward, Dr. G. Ernest Herman, Dr. J. Braxton Hicks, Dr. Berkeley Hill, Mr. Timothy Holmes, Dr. Benjamin Howard, Mr. Jonathan Hutchinson, Sir William Jenner, Dr. Joseph Jones, Dr. P. W. Latham, the late Mr. Harry Leach, Dr. J. Wickham Legg, Dr. Robert Liveing, Sir William MacCormac, Mr. Charles Macnamara, Dr. John Macpherson, Dr. T. More Madden, Dr. Patrick Manson, the late Dr. Charles Murchison, Mr. Edward Nettleship, Miss Florence Nightingale, Dr. W. M. Ord, Sir James Paget, the late Dr. Edmund A. Parkes, Dr. F. W. Pavy, the late Dr. T. Beville Peacock, Dr. W. S. Playfair, Dr. G. Vivian Poore, Dr. R. Douglas Powell, Mr. J. Netten Radcliffe, Dr. Frederick T. Roberts, Dr. William Roberts, Dr. Alfred Sangster, Dr. R. Saundby, the late Dr. Edward C. Seaton, Mr. John Simon, Dr. Alexander R. Simpson, Dr. Eustace Smith, Dr. Robert Southey, Dr. T. Grainger Stewart, Mr. J. F. Streatfield, Dr. George Thin, Sir Henry Thompson, Dr. J. C. Thorowgood, Dr. J. Batty Tuke, Mr. T. Spencer Wells, Sir Erasmus Wilson, and Dr. Alfred Wiltshire. We have mentioned only the names of those of the contributors who are well known in this country.

The preparation of this great work must have occupied Dr. Quain and his collaborators for several years back, and they are all to be congratulated on having brought it to so satisfactory an issue. The book is in reality a cyclopædia of medicine and surgery, the special and very decided merits of which are, that it is not the product of one man's grubbing, of the sort exemplified in the past by the cognate works of Copland and Cooper; that it is not so diffuse and interminable as the great German work now in course of publication under Eulenburg's supervision, or as the various French cyclopædias; but that it certainly presents, within a reasonable compass, such a picture of the medicine and surgery of the present day as will prove serviceable as a guide to its readers for several years to come, and remain for all time a book of reference that will prove of the greatest value to those who in future years may have to undertake the task of inquiring into the facts and doctrines that they will find to have led up to the period of their own work.

The volume is a handsome one. Although the type is small, the printing has been done so well that the page is not at all irksome to the eye. The fact that there is but one volume seems to us a decided advantage. Large type and the avoidance of bulkiness are highly desirable in the case of books intended to be read through in course, but, in the case of cyclopædias, multiplicity of volumes becomes far more objectionable than the large size of a single volume.

A System of Surgery; Pathological, Diagnostic, Therapeutic, and Operative. By SAMUEL D. GROSS, M. D., LL. D., D. C. L. Oxon., LL. D. Cantab., Emeritus Professor of Surgery in the Jefferson Medical College. Illustrated by upward of sixteen hundred engravings. Sixth edition, thoroughly revised and greatly improved. In two volumes. Philadelphia: Henry C. Lea's Son & Co., 1882. Pp. xxxii-35 to 1194, inclusive; xxxii-19 to 1174, inclusive.

THIS is no new work, but one with which every American surgeon is acquainted, and to which he has long been accustomed to refer. As we notice the additions in this book, complete almost to the time of its going to press—the record of important cases, the improvement in all departments of surgery—we can but wonder at the activity of the author. There is little in the way of criticism which can be said about a book which is so well known, and which has been approved for so long a time. What we have always admired about the work is the portion which is devoted to the subject of inflammation. Few writers have presented it in a more concise and readable

form, and the theories of the best English and German pathologists are stated clearly. Upon this subject Dr. Gross wisely remarks that it is not by following a theory, or theories, that we can become intimately acquainted with this subject, but by close and continued observation and reflection. We should expect that a man of such habits of thought would be conservative; hence it is that he adheres to his belief in the value of bleeding as a therapeutic measure. In this view he is not alone. The same conservative turn of mind has prevented him, we think, from recognizing the great merit of antiseptic surgery, and of according to Mr. Lister that generous recognition of merit which his great services to humanity deserve. With clean, sweet hospitals, the older generation of surgeons are apt to forget the pre-antiseptic days when a surgeon opened a joint, or performed almost any of the major operations, with fear and trembling as to the result. The revolution does not consist in the use of carbolic acid, nor in greater technical skill, but in increased care and cleanliness. Dr. Gross has had opportunities to be useful such as few men enjoy. May he long be spared to humanity and to the profession.

The Principles and Practice of Surgery. By JOHN ASHHURST, Jr., M. D., Professor of Clinical Surgery in the University of Pennsylvania, etc. Third edition, enlarged and thoroughly revised. With five hundred and fifty-five illustrations. Philadelphia: Henry C. Lea's Son & Co., 1882. Pp. xviii-33 to 1064, inclusive.

WITHOUT being so comprehensive a work as Gross's, Agnew's, or Holmes's, Dr. Ashhurst's work furnishes an excellent manual for every-day use. It is essentially practical, and covers the wide field of surgery in as concise a manner as possible. The author offers no new theories for treatment or for operative procedure. In regard to venesection, he believes it is very rarely indicated, and has practiced it on very few occasions. Listerism he does not believe in, claiming that it is cumbersome, and leads to no better results than other methods. Certainly the results of Mr. Lister's teaching in Germany and France do not support the latter statement. The fact that the book has already reached its third edition is sufficient evidence of its acceptability to the profession.

A Guide to Therapeutics and Materia Medica. By ROBERT FARQUHARSON, M. D. Edin., F. R. C. P. Lond., late Lecturer on Materia Medica at St. Mary's Hospital Medical School, etc. Third American edition, revised by the author. Enlarged and adapted to the U. S. Pharmacopœia by FRANK WOODBURY, M. D., Physician to the German Hospital, Philadelphia. Philadelphia: Henry C. Lea's Son & Co., 1882. Pp. 526.

DR. FARQUHARSON has tried, in this little volume, to put the great subject of therapeutics on a scientific basis. He has made no attempt at classification, yet his book is written from the stand-point of the physiological action of drugs. In his introduction he has given some admirable rules for prescribing. In the body of the work he has tried to follow what seems to us an excellent plan—namely, to present the physiological effects of the drug, and then to trace its therapeutical uses from these effects. The tendency to make practical application of physiological facts is growing among medical men. This third edition is heightened in value by the excellent additions made by the American editor. We do not hesitate to pronounce it the best book of its size on the subject in the English language. We wish it were more complete on many subjects, but for its size it goes over as much ground as it is possible to do.

Lectures on the Pathological Anatomy of the Nervous System. Diseases of the Spinal Cord. By J. M. CHARCOT, Professor to the Faculty of Medicine of Paris, etc. Translated from the reports by Dr. E. BRISSAUD, in the "Progrès Médical," by CORNELIUS G. COMYGS, M. D., Lecturer on Clinical Medicine to the Cincinnati Hospital, etc. Cincinnati: Peter G. Thomson, 1881. Pp. xi-165. [Price, \$1.75.]

ANY book with the name of so noted an author as Charcot on the title-page will certainly be read with interest by the medical profession. The work under consideration fully supports the lecturer's reputation for original research and a thorough knowledge of his subject. The opening pages are devoted to a recapitulation of what is already fully understood concerning the topographical relations of the different segments of the cord, but as we advance we find that the chapters on the different varieties of degeneration, myelitis, localizations in the gray substance, etc., if not entirely new, present so many new features that the book can safely be recommended to both students and practitioners as a work of exceptional excellence. Numerous original illustrations help to elucidate the author's views.

As a translation, very little can be said in its favor. It contains several errors, and a great deal of badly expressed English. In the preface the writer informs us that his translation formed Professor Charcot's course for 1879-'80. Why Charcot should have preferred a poor English translation of his lectures to his native tongue is a problem which only the author of the foregoing remarkable statement can solve. Further on the translation is twice referred to as *they*. Taking these faults, and many others, into consideration, we are forced to agree with the writer when he says he is sure that others might have made the translation better than himself.

A Supplementary Catalogue of the Pathological Museum of St. George's Hospital: a Description of the Specimens added during the Years 1866-1881. By ISAMBAARD OWEN, M. D., Curator. London: J. & A. Churchill, 1882. Pp. xxxiv-284.

THE pathological preparations described in this volume comprise those numbered from 3,403 to 4,284. The first volume was issued in 1866. References are given to the transactions of various societies, to the registrars' records of medical and surgical cases preserved in the hospital, so that one can readily find a full report of the case from which any specimen was obtained. If more of the hospitals would publish catalogues of the specimens contained in the different museums connected with them, much exceedingly valuable material would become available. The volume is well printed, and reflects much credit on the curator.

BOOKS AND PAMPHLETS RECEIVED.

Fifty-seventh Annual Report of the Massachusetts Charitable Eye and Ear Infirmary, for the year 1882. Boston. Pp. 39.

Mannal of Gynæcology. By D. Berry Hart, M. D., F. R. C. P. E., Lecturer on Midwifery and Diseases of Women, School of Medicine, Edinburgh, etc., and A. H. Barbour, M. A., B. Sc., M. B., Assistant to the Professor of Midwifery, University of Edinburgh, etc. Vol. I. With eight plates and one hundred and ninety-two woodcuts. New York: William Wood & Co., 1883. Pp. xviii-313. [Wood's Library of Standard Medical Authors.]

Diseases of Modern Life. By Benjamin Ward Richardson, M. D., M. A., F. R. S., F. R. C. P., etc. New York: D. Appleton & Co., 1883. Pp. xii-520. [Paper; price, 10c.]

Dell' Anemia Splenica. Del Dott. G. Banti, Aiuto-Dissettore alla Scuola d'Anatomia Patologica di Firenze, etc. Firenze: Successori Le Monnier, 1882. Pp. 70. [Estratto dalle Pubbli-

cazioni del R. Istituto di Studii superiori in Firenze, Sezione di Medicina e Chirurgia e Scuola di Farmacia.]

The Physiology of Alcoholics. An Address. By William B. Carpenter, M. D., LL. D., F. R. S., etc. New York: National Temperance Society and Publication House, 1883. Pp. 22.

Annual Reports of the Sanitary Protection Association of Newport, R. I., for 1881-'82. Pp. 7.

The Dangers of Impure Ice. Report, etc. By Professors Raphael Pumpelly, of the United States Geological Survey (Chairman), William B. Hills, of Harvard University, and Dr. H. R. Storer. Pp. 12. [Reprint from the "Sanitarian."]

The Philosophical Relations of Heat to Disease. By Romaine J. Curtiss, M. D., Joliet, Illinois. Pp. 11. [Reprint from the "St. Louis Medical and Surgical Journal."]

The Insufficiency of the Laws governing Commitments to Asylums for the Insane; with Reports of Cases. By Boardman Reed, M. D., President of the Atlantic County Medical Society, etc. Pp. 6. [Reprint from the "Philadelphia Medical Times."]

Addresses delivered on the Occasion of the Dedication of Cooper Medical College Building. By Levi C. Lane, A. M., M. D., etc., and by Edward R. Taylor. San Francisco, 1882. Pp. 42.

Naso-antral Catarrh and its Treatment. By W. H. Daly, M. D., Pittsburg, Pa. Pp. 6. [Reprint from the "Archives of Laryngology."]

The City of Mobile, and the Contiguous Country about the Gulf Coast, as a Winter Resort for Health and Pleasure of Invalids and others from the North and Northwest. By William H. Anderson, M. D., Professor of Physiology in the Medical College of Alabama, etc. Mobile, 1882. Pp. 17.

Quain's Anatomy. Edited by Allen Thomson, M. D., D. C. L., LL. D., F. R. S., etc., Edward Albert Schäfer, F. R. S., etc., and George Dancer Thane, Professor of Anatomy in University College, London. Ninth edition, two volumes. Nearly 1,200 engravings, of which 97 are colored. New York: William Wood & Co., 1882. Pp. xiii-747; ix-947.

A Practical Treatise on Diseases of the Skin, for the Use of Students and Practitioners. By James Nevins Hyde, A. M., M. D., Professor of Skin and Venereal Diseases, Rush Medical College, Chicago, etc. Philadelphia: Henry C. Lea's Son & Co., 1883. Pp. 572.

The Functions and Disorders of the Reproductive Organs in Childhood, Youth, Adult Age, and Advanced Life, considered in their Physiological, Social, and Moral Relations. By William Acton, M. R. C. S., late Surgeon to the Islington Dispensary, etc. Sixth edition. Philadelphia: P. Blakiston, Son & Co., 1883. Pp. xii-267.

A New Theory of the Origin of Species. By Benj. G. Ferris. New York: Fowler & Wells, 1883. Pp. 7 to 278, inclusive.

The Compend of Anatomy, for Use in the Dissecting-Room and in Preparing for Examinations. By John B. Roberts, A. M., M. D., Lecturer on Anatomy and on Operative Surgery in the Philadelphia School of Anatomy, etc. Third edition. Philadelphia: C. C. Roberts & Co., 1882. Pp. 198.

London Water Supply. Report, etc., No. XXIV. By William Crookes, F. R. S., William Odling, M. B., etc., and C. Meymott Tidy, M. B., etc. London: Wertheimer, Lea & Co., 1883.

The Management of Chronic Inebriates and Insane Drunkards. By Albert N. Blodgett, M. D. Boston, 1882. Pp. 24.

The Best Methods of Treating Operative Wounds. By Henry O. Marcy, A. M., M. D., Boston. Pp. 16. [Reprint from the "Medical Gazette."]

The Placental Development in Mammals. A Unity of Anatomical and Physiological Modality in all Vertebrates. By

Henry O. Marcy, M. D., Boston. Pp. 11. [Reprint from the "Annals of Anatomy and Surgery."]

A Simple Solution of the Mystery of Tubercles, etc. By Rollin R. Gregg, M. D., Buffalo, N. Y. Buffalo, 1883. Pp. 19.

Overtaxed Brains, etc. By R. R. Gregg, M. D. Pp. 8.

A Text-Book of Pathological Anatomy and Pathogenesis. By Ernst Ziegler, Professor of Pathological Anatomy in the University of Tübingen. Translated and Edited for English Students by Donald Mac Alister, M. A., M. B., M. R. C. P., Fellow and Medical Lecturer of St. John's College, Cambridge. Part I—General Pathological Anatomy. London: Macmillan & Co., 1883. Pp. xvi-360. [Price, \$3.50.]

Hand-book of Vertebrate Dissection. By H. Newell Martin, D. Sc., M. D., M. A., Professor in the Johns Hopkins University, and William A. Moale, M. D. Part II. How to Dissect a Bird. New York: Macmillan & Co., 1883. Pp. iv-89 to 174, inclusive. [Price, 60c.]

Experimental Pharmacology. A Hand-book of Methods for Studying the Physiological Actions of Drugs. By L. Hermann, Professor of Physiology in the University of Zürich. Translated, with the author's permission, with notes and additions, by Robert Meade Smith, M. D., Demonstrator of Physiology in the University of Pennsylvania. With thirty-two illustrations on wood. Philadelphia: Henry C. Lea's Son & Co., 1883. Pp. 201.

The Systematic Treatment of Nerve Prostration and Hysteria. By W. S. Playfair, M. D., F. R. C. P., Professor of Obstetric Medicine in King's College, etc. Philadelphia: Henry C. Lea's Son & Co., 1883. Pp. 17 to 111, inclusive.

Die Arzneimittel der Pharmakopœa Germanica, editio altera, für die ärztliche Praxis übersichtlich zusammengestellt von Dr. Julius Grosser. Berlin: Verlag der Deutschen Medizinal-Zeitung, 1883. 16mo, pp. 5 to 29, inclusive.

Consultation Chart of the Eye Symptoms and Eye Complications of General Diseases. Arranged after Foerster and others, by Henry G. Cornwell, M. D., Columbus, Ohio, Clinical Lecturer on Ophthalmology and Otology, Starling Medical College. Columbus, O: H. C. McClelland & Co. [Price, 25c.]

Vaccination: its Fallacies and Evils. By Robert A. Gunn, M. D. Third edition, revised and enlarged. New York: Nickles Publishing Co., 1882. Pp. 38. [Price, 25c.]

On Canadian Fresh-Water Polyzoa. By William Osler, M. D. Pp. 8. [Reprint from the "Canadian Naturalist."]

On Certain Parasites in the Blood of the Frog. By William Osler, M. D. Pp. 7. [Reprint from the "Canadian Naturalist."]

THE DELUSIONS OF DISINFECTION.—The distinction between disinfectants, antiseptics, and deodorizers, says a writer in the "Sanitary News," November 15, 1882, should be kept in mind. A disinfectant is a substance which destroys infection or the seeds of disease. An antiseptic is an agent which prevents decay in organic material which is liable to decomposition. Disinfectants are often antiseptic, but antiseptics may not be disinfecting. Vinegar, sugar, and salt are examples of the latter. Arsenic and corrosive sublimate are antiseptics, and are also powerful disinfectants. Prolonged high temperature is a powerful disinfectant, but does not prevent decomposition. Freezing is an antiseptic, but is not a disinfectant. The gases which are generated by decomposing animal and vegetable matter are the pabulum upon which specific germs thrive when they are once introduced. Deodorizers are useful in so far as they neutralize and destroy these gases. But, if the germs of disease have been already generated in these gases, destroying the odor has no effect in the way of removing the poison. Herein lies the great error of ordinary sick-chamber fumigation. It is usually only the substitution of one odor for another. No atmosphere in which a human being can live will act destructively upon these organisms which constitute the germs of disease.

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MEDICAL SOCIETIES AND PUBLIC WORKS.

It is getting to be quite a common thing for medical societies to be asked to pass resolutions, and perhaps utter a petition to the general Government, in favor of this, that, or the other scheme of public sanitation or some undertaking of one sort or another by which, it is generally asserted, the public welfare, as well as that of the profession, is likely to be conspicuously enhanced. This particular form of jobbery is most apt to crop out at meetings of the national or State societies, since most of those societies are convened but once a year, and have therefore little time to inquire into the real merits of the enterprises in furtherance of which their action is asked. Moreover, these societies have more ambitious names than those that do the actual work of the profession, and, professing to represent medical opinion as it prevails in the large districts from which they draw their membership, they naturally seem more available for the task of impressing the legislative mind.

We have no intention of implying that society aid is not often sought and obtained in favor of measures that are proposed with the utmost purity of intention, and that bear the unquestionable features of having been devised solely for the public good. We are persuaded, however, that in too many instances the advantage of the proponents is the real objective, a yearning for emolument, or official dignity, or the power of dispensing patronage being but scantily draped with the garments of the reformer. Trivial as the disguise is, it is very apt to enable the trickster to withstand any feeble objection that may come from the few who really see through it—partly because a certain number of votes may always be counted upon as the sincere tribute of the unsophisticated to supposed merit, partly because the great majority are apt to think that, if no good comes from the measure, at least no particular harm is likely to result, but chiefly from the unwillingness of a few men of discernment to undertake the ungracious task of making what would very likely be taken, they are apt to think, as factious opposition.

Much of the proceedings of these large societies, however representative they may profess to be, is not strictly deliberative, but rather of the frothy character indicative of its having been brought about by emotional agitation if not by intrigue. A little reflection would generally suffice to teach those who are hastily led into such action that it is not, on the whole, calculated to promote the public good. And so the aggressive "reformer" and *soi-disant* philanthropist carries his point, and, fortified by the express approval of an organized body supposed to be made up of the flower of his profession, takes his axe to Congress or to the State legislature to be ground.

No doubt the hollowness of such indorsements is seen

through by the great majority of our legislators, but let us not on that account be too ready to catch at the consoling reflection that the evil will work its own cure—it is so working its cure, to be sure, but there are certain collateral effects that are by no means desirable. Chief among these is the contempt with which such action on the part of our medical societies is coming to be looked upon by members of the law-making bodies, and the consequent increasing powerlessness of the medical profession to exercise any public influence in its organized capacity, even as the result of careful deliberation and a firm conviction. This is the position into which we are rapidly drifting, and one from which we can not rescue ourselves at once, but only by declining persistently and on all occasions to pass hasty resolutions in favor of any scheme whatever. Even unobjectionable projects should not be so bolstered up for some time to come, until we have regained the status we once enjoyed in the eyes of the community at large. Any matter of public policy that is really a fit subject for legislators to take advice upon from our profession can for the present best be furthered through the medium of our journals or by the efforts of individual physicians who are known to be men of systematic habits of thought and observation, mature training, broad tolerance, and utter freedom from the warping effects of personal influence.

ANATOMICAL STUDY.

EXCEPT those who are engaged in teaching anatomy, there seem to be few who pay any particular attention to the matter after having taken the degree of doctor in medicine. We refer now to ordinary gross anatomy, for we are well aware that many of the most industrious and most capable of those who are contributing to the advancement of medical science devote much of their time to questions of minute anatomy, which questions, it can not be denied, are of the highest import in their bearing on physiology, on pathology, and indeed on various branches of experimental medicine. So, too, there are those among the surgeons who study regional anatomy on occasions, but their study has chief reference, we imagine, to some particular operative work that happens to be in hand at the time; hence, the surgeons seldom so systematize their labor in this field, or carry it to a stage beyond that in which it serves their immediate purpose, that any impression is made upon the notions held in general with regard to gross anatomy.

There are some notable exceptions to this statement, and it seems to us that those exceptions show such practical advantages gained that it may be well to mention a few of them. Restricting our survey to recent work by New York men, we would first specify the long-continued and admirable investigations, by Dr. Otis, of the normal caliber of the male urethra. Opinion, of course, is not yet settled as to how far Dr. Otis's practical deductions are to be accepted as applied to operative procedures designed to correct what he considers abnormalities, but what some others may look upon as not constituting noteworthy deviations from the normal state of things; but this want of accord in interpreting his facts does not take away in the slightest from the recognition due him of the ingenuity of

his investigations, or of the results that have grown out of their bearing upon matters of practice. It is not alone that the treatment of stricture hinges upon just such points as Dr. Otis's inquiries embraced; there can be little doubt that his demonstration of the normal capacity of the urethra paved the way to the great advances that have been made of late years in the treatment of vesical calculi, especially the operation of litholapaxy.

Another noteworthy example of the practical importance that attaches to anatomical researches is to be found in the manifest bearing of Dr. Thomas's study of the female perinæum on the whole range of procedures having for their aim the mechanical restoration of the parts within the pelvis to their normal relations to each other. In this case, as in the former, we need not coincide with the investigator's views in order to reap benefit from his work; the main point is, to have the matter brought forward in proper shape, as has been done both by Dr. Otis and by Dr. Thomas, so as at least to awaken general interest in it, and lead others to go over the work for themselves.

TRICHINIASIS.

It is to be feared that the reproach will attach but too justly to the American people of having allowed commercial ambition, associated with a natural resentment of the unfair suspicions that have so often been cast upon them abroad, to shield those who have the hog industry in charge from too close an inspection of its products. As a matter of course, we have to contend with the rivalry of foreign purveyors of food-products—men who would show a most uncommercial nobility if they did not turn every circumstance and suggestion to advantage that could aid them in stemming the tide of importation from America. Allowing this consideration its full weight, still, the world has got past that period of its history in which the allegation of an animus was a good defense against an injurious charge.

It will not do for us to cry out that the envious pork-dealers of various European countries have but made the most of a popular dread in order to curtail American competition, and so protect themselves. The plea may be founded in truth, and doubtless is, but we must go farther, and take the most stringent measures to guard against any confirmation of their statements. We must do our best to secure the absolute impossibility of trichinous pork being furnished by our dealers, either for home consumption or for foreign markets. In the language of Mr. Billings, whose initial article on the subject will be found in this number of the journal, we must "take some other course than evasion with reference to the contagious, infectious, and invasive diseases of our domestic animals."

Moreover, it will not do to content ourselves with adjuring people to cook their pork thoroughly. Cooked trichinæ do not commend themselves to the discriminating, and they can not be called over-nice if they return curses for our advice. But there is one contention that, it seems to us, we are fully warranted in urging, viz.: that, while we will take all possible

measures to prevent the exportation of infected pork, and its exposure for sale at home, and while we do not deny that, when sent abroad, our pork may rightfully be subjected to the closest scrutiny, we do take the position that such scrutiny is all the bar that can with justice to us and to the European consumer be put upon the trade.

Although the past few years have witnessed a growing devotion on the part of our veterinarians to the strictly scientific aspects of their pursuit, as evinced by the establishment of collegiate institutions for training a class of men that shall at no distant day, we trust, supplant the farriers of our early history, and as shown by the contributions to the literature of comparative medicine that are coming more and more often from our own veterinary practitioners, and showing a steady increase in value; still, veterinary medicine in America is not yet accorded by the general public the true dignity that its importance calls for, and that is the necessary prerequisite of its study and practice being undertaken to any great extent by a class of men who, as things stand, can more easily attain to eminence and prosperity in other pursuits. The period has not yet gone by when an advocate meets, not with rebuke, but with applause, in a dastardly attempt to break a man down on the witness-stand by hurling at him the epithet of "horse-doctor." All the more honor, then, should we accord to the few brave and devoted men who are able to stand up against this state of things.

CRUELTY IN LUNATIC ASYLUMS.

A SHORT time ago, at the meeting of the National Association for the Protection of the Insane, held in Philadelphia, a paper was read by the Rev. Heber Newton, which commented severely on the manner in which the insane were treated in lunatic asylums. The paper made no local allusions, but a representative member of the profession in Philadelphia, and a neurologist of ability and prominence, is said to have denounced the essay in no measured terms, and to have made the rather gratuitous assertion that the insane were always well treated in Pennsylvania.

Passing over the barbarities which about two years ago were stated to exist in the lunatic department of the Blockley Almshouse, and were so severely commented upon by Dr. Bucknill, we beg leave to call attention to some recent allegations in regard to the asylum at Dixmont, near Pittsburg. It is stated that "Dr. Julius Sevin, at one time a leading physician in Erie, became insane about eight years ago, and was sent to this asylum. He states that his reason was restored in less than two years after his incarceration, but that he was forcibly detained during the rest of the time. His letters to his friends were intercepted, and he was subjected to the most cruel indignities. At last, through the pity of a keeper, his letters reached his friends and he was released. Dr. Sevin brings charges against the managers of the asylum of inattention to the real condition of patients, and of detaining them for years after they are cured. Over sixty sane patients, he alleges, are now in the asylum. The keepers in some cases have been brutal in their

treatment of the helpless patients. The superintendent, Dr. Reed, is presumably ignorant of these cruelties and neglect, as he leaves the actual care of the patients to young physicians and to keepers."

Now, as the "Tribune" remarks, these charges may or may not be true. They were made public, however, at almost the very time that the association alluded to was in session. A good deal of allowance must always be made, we grant, in accepting the statements of those concerning whose sanity there is any reasonable doubt, and we believe that in the greater number of instances in which complaints are made against asylum officers, either by former inmates or by officious "philanthropists," there will be found to be but the slenderest foundation, if any at all, for such complaints. However, occasional barbarities undoubtedly do occur, and will continue to occur so long as the superintendent's time is more given up to the care of property than to the care of patients. The point we would emphasize is, that it is better to investigate such charges than to deny them in general terms.

THE PENNSYLVANIA LUNACY LAWS.

THE public attention which has been drawn in this State to the defective legislation on behalf of the insane is bearing fruit in like attempts to improve the laws in neighboring States. An illustration of this may be found in General Butler's recent inaugural address as Governor of Massachusetts, a considerable portion of which was taken up with a summary denunciation of the management of all the public institutions for the care of the insane. It is the opinion of many that the facts did not fully warrant the statements made by the Governor, but it is certain that if there were faults of management, they will now be noticed and corrected. In Pennsylvania a commission was appointed not long since, by Governor Hoyt, for the purpose of examining the lunacy laws of Pennsylvania and reporting to the Legislature any recommendations in regard to them. This commission consisted of ex-Governor Hoyt, George L. Harrison, Dr. S. Weir Mitchell, Dr. Reed, and Richard C. McMurtrie, and well represented the legal and medical professions of Pennsylvania.

The commission has recently made its report, and its recommendations are more subversive of the existing law than those made for this State by the committee of the Medico-Legal Society of this city, a summary of which was recently given in this journal, for the reason that the laws of New York are more satisfactory than those of Pennsylvania on the subject.

Proceedings of Societies.

NEW YORK SURGICAL SOCIETY.

(Concluded from page 219.)

INTESTINAL OBSTRUCTION.—Dr. WEIR presented a specimen which illustrated intestinal obstruction occurring in the splenic flexure of the colon. The cause of the constriction was cancer. It was removed from the body of a woman thirty-three years of age, married, who entered the New York Hospital, November 28, 1882, in the medical service. She had had complete obstruction for nine days previously, associated during the last

few days with stercoraceous vomiting. The history was that she had had, some time last spring, an attack of intestinal obstruction, but not very severe, and from that time had suffered from attacks of constipation. The cause of the last obstruction could not be readily elicited, nor was any light thrown upon the subject by examination of the distended abdomen. It was recognized that there was great distension of certain coils of intestine, apparently in the site of the colon, though this could not be positively made out. Examination with the rectal tube showed that the gut could be penetrated to the depth of twenty-eight inches. This was accomplished several times, when large enemata were administered. These latter also established the fact that about one hundred ounces of water could be received the last time into the bowel without unduly distressing the patient when placed in the knee-elbow position. Prior to her admission to the hospital, which was on a Tuesday, she had received a great deal of treatment, the exact nature of which could not be determined. At the invitation of the Visiting Physician, Dr. Draper, Dr. Weir saw the case on Wednesday afternoon, at which time the patient had a temperature of 102° Fahr., pulse 120. These symptoms, together with the stercoraceous vomiting, the duration of the case, and the history of constipation of marked severity, led him to the conclusion that delay should not be continued much longer, and he therefore proposed a preliminary rectal examination. It was determined, however, to repeat the injections, and to wait until the following morning, and, if no relief was obtained, to then resort to surgical interference. Relief was obtained, the injections bringing away a certain amount of fecal material, and the discharge was followed by two additional fecal evacuations of a creamy, muddy color and consistence. The vomiting ceased, and the general condition of the patient was so much improved as to encourage postponement of the proposed surgical interference. On Friday the symptoms of obstruction again appeared, except the vomiting, the abdomen became more distended than it formerly had been, the temperature rose higher, and there was nausea and cessation of fecal discharge and flatus. On Saturday, Dr. Weir again saw the patient, and it was then learned that her general condition had very much depreciated within the last two days. Dr. Weir then proposed that the rectal examination be made, which was assented to, and he then introduced his hand (9½ in. in circumference) slowly into the bowel, but was unable to carry it up beyond the upper rectal pouch, though he could carry one finger sufficiently far to enable him to sweep over the cæcal region. This, however, could not be recognized. He had proposed to perform a right lumbar colotomy if it had been determined by rectal exploration that the cæcum was distended, or, if unable to determine this point, to perform enterotomy. The patient, however, was so much prostrated by the ether and the examination as to forbid a resort to further surgical procedure. She did not rally, as was hoped, but gradually sank, and died twenty-four hours afterward. The autopsy revealed cancerous disease at the splenic flexure of the colon, so slightly perceptible externally as scarcely to be recognized. There was also a most minute secondary involvement of the liver. No injury had been done to the rectum by the manual exploration. The point of obstruction was twenty-three inches from the anus. The cæcum was apparently in the normal position, and not distended with fluid, but with air. To this point Dr. Weir wished to direct the attention of surgeons, because he had heretofore felt considerable confidence that, in cases of obscure intestinal obstruction, rectal exploration might be available as a means of diagnosis, and, by the recognition of a distended cæcum, might enable the surgeon to act with greater accuracy. In this instance such exploration had failed. The experience of Dr. Halsted, also, who would follow him in the presentation of a specimen, had led to

the conclusion that when the cæcum was distended with air it might not always be readily recognized by the touch. Another point to which he would like to ask attention was the diagnostic value of injections of water and of the rectal tube. Heretofore he had placed much reliance upon the rectal tube, especially when the French black tube was used, because this latter more readily showed on withdrawal any twisting or sharp bending that might have taken place. In two instances he had proved by operation, or by autopsy, that the site of obstructions had been quite accurately determined in this manner. He had found some difficulty in carrying the tube beyond the sigmoid flexure in the cadaver in four recent trials by Dr. Peabody; but in the living subject it could be introduced quite easily. This difficulty could be easily understood because of the difference in the condition of the parts. During life the intestines yielded to pressure more readily than in the rigid cadaver, and perhaps the end of the tube itself produced spasmodic contraction, and the gut consequently changed its position, or that of the end of the tube. As to the injection of fluids, there was an appreciable fallacy in that means of diagnosis, because the opening in the large intestine might admit the passage of fluid beyond it. That error was committed in one instance where there was a narrowing of the transverse colon, in which case he had performed right lumbar colotomy. Prior to the operation, large quantities could be injected, and but little return. In one trial of a large turpentine enema, the matter vomited was strongly impregnated with the odor of the injection, showing that the ileo-cæcal valve had been forced.

A final word might be added which would bear also on the case to be subsequently narrated. It was, that the pathologist of the hospital had, in remarking on the difficulty that would have been encountered in recognizing the site of the obstruction by a laparotomy, said that in six autopsies of intestinal obstruction he had lately made, he believed that in nearly every one from a similar cause relief would not have resulted from an operation.

INTESTINAL OBSTRUCTION.—Dr. W. S. HALSTED presented a specimen with the following history: Anna B., aged thirty-five, Irish, widow, well nourished, mother of eight children (youngest five years old), was admitted to Charity Hospital, December 16, 1882, complaining of constipation, colicky pains, distension of abdomen, and vomiting. Patient stated that she had since her infancy been subject to similar, but less severe, attacks, and remembered five previous ones distinctly, the last having occurred in March of this year. Heretofore had been promptly relieved by "medicine," her symptoms having persisted on only one occasion for as long a time as two days, and their subsidence being always coincident with the escape of much flatus. Constipation had attracted the patient's attention for several days prior to the present seizure, which developed suddenly, about one week before admission, while she was drinking a cup of tea. Since then nothing had passed from the bowels. She vomited on the 15th for the first time a little mucus, and had continued to eject, at intervals of several hours, frothy mucus, and possibly bile, but at no time stercoraceous matters. House Physician gave a cathartic soon after admission. Dr. Halsted's attention was called to the case on the following day, December 17th. The recorded history being incomplete, he recited it as accurately as possible from memory.

Found the patient tossing from side to side, moaning loudly, and apparently in great distress; countenance slightly flushed, but not anxious. Respiration 27, pulse 98, temperature 98.5°. Thighs flexed, abdomen much distended, and unevenly so, everywhere tympanitic, and in no one region especially sensitive to pressure.

Diagnosis, intestinal obstruction. Prescribed morphia hypo-

dermically, and directed that enemata, as large as possible, should be administered with the longest available tubes.

December 18th.—Patient confident that she is convalescing. Assures us that she is free from pain, and has passed "wind" per anum. Respiration 22, pulse 104, temperature 98.5°. Can not ascertain positively how much urine has been voided, but nurse guesses four ounces in twelve hours. House Physician states that a hard œsophageal tube was introduced last evening to its full extent (about twenty inches), and that only one quart of fluid could be injected, which, when evacuated, brought with it mucus, but no gas, and not a trace of feces. Repeated the injection myself with like result, and noticed that the tube was in several places most singularly bent and twisted.

December 19th, 5 P. M.—Pulse 120 and intermittent; 6 P. M., patient anesthetized. Assisted by Dr. Weir, proceeded to operate under carbolic-acid spray (1-40). Incision in median line from umbilicus to pubes. The peritonæum being divided, a small quantity of serous fluid escaped through the wound. The large intestine very much distended, and, presenting a few small, superficial ecchymoses, occupied the entire field of view, being folded upon itself longitudinally. The separation of the folds exposed the quite normal small intestine. After a somewhat prolonged and unsatisfactory search for the cause of the obstruction, which was evidently below the flexura lienalis, there could be felt with the right hand a dense cylindrical band about the size of one's little finger, very deeply situated, and stretching from near the promontory of the sacrum obliquely upward and outward to the parietes of the left hypochondrium, not far from the tip of the twelfth rib. The abdominal incision was then extended to within about two inches of the xiphoid cartilage. The obstructing cord being exposed, it could be seen to have its apparent origin from the transverse colon, and was divided between two stout catgut ligatures, which were passed around it by means of an aneurism needle. Below the band, and clearly compressed by it, were two tubes of large intestine, one of which filled with air as soon as released, while the other did not. The patient's condition was too bad to justify much further investigation, although it was evident that the disposition of the sigmoid flexure was most puzzling, and possibly offered another obstacle to the escape of intestinal contents. The distended colon, which had been protected throughout the operation by towels warmed in a solution of carbolic oil (1-40), was replaced without very much difficulty, and the wound united by a double row of sutures; the deep, of silver, included the peritonæum.

December 20th, 1 P. M.—Patient has just died. Ever since the operation, was observed by internes and nurses to have passed large quantities of gas from the bowels.

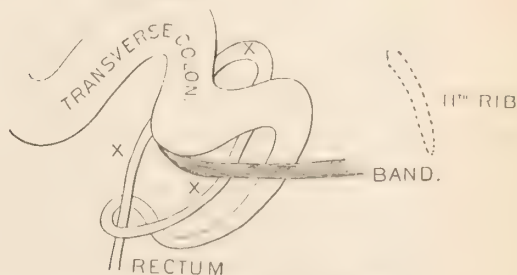


FIG. 3.—Before the Operation.

December 21st, 12 M.—Autopsy.—Quite firm union all along line of incision. Transverse colon slightly adherent to wound a little below umbilicus. Large intestine reached to fourth intercostal space on left side, and was disposed as shown in Fig. 5. Attached to the anterior surface of transverse colon at

about its middle, and having its origin in the great omentum, was one portion of the divided band with its catgut ligature, the other part being intimately blended, and apparently con-

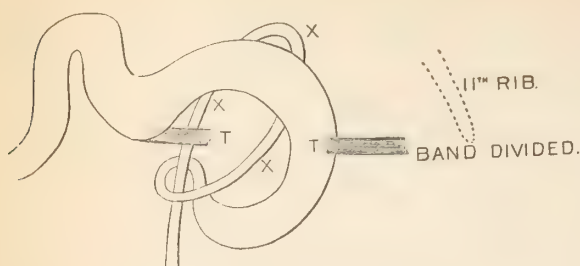


FIG. 4.—Immediately after the Operation.

tinuous, with the diaphragmatic peritonæum between the eleventh and twelfth ribs. The specimens before you show the attachments of the band. Figs. 3 and 4, drawn in the light of the autopsy, are intended to illustrate what presumably existed before and immediately after the operation. The x's designate sigmoid flexure looped and twisted upon itself from right to left. The sigmoideo-rectal junction was sufficiently narrowed in the bight of the volvulus to prevent the ready escape of flatus per rectum. This constriction was evidently one of very long standing, and intensified somewhat by the underlying falciform fold of its mesocolon, which normally extends from the mesentery to the upper end of the rectum, and which, in this case, was unusually strong and prominent, with its concavity directed ventrally.

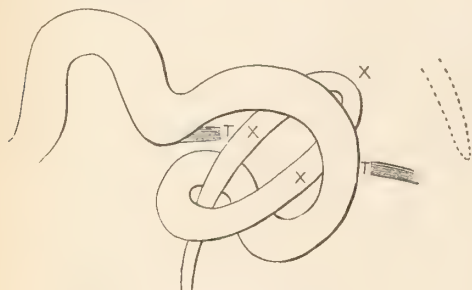


FIG. 5.—At the Autopsy.

The pathogenesis may, then, have been: First, non-inflammatory adhesion, in intra- or early extra-uterine life, of a considerable portion of large omentum (mesogastrium) to parietal peritonæum, adhesions of this nature being incidental to development, as urged by Larger and verified by Toldt. Second, embarrassed growth of sigmoid flexure, giving rise to a rotation of same which was permitted by the great length of the free mesocolon at that early period, or by its coincident development. Third, narrowed sigmoideo-rectal junction, its growth having been somewhat restrained, or its lumen reduced by pressure from without. Fourth, acute symptoms due, as suggested by Busch, to sudden distension of gut above and retraction of mucous membrane from below omental band, possibly preceded by further intrusion of descending colon under the site of constriction. I would suggest in similar cases the advisability of operating early, not only that the patient may survive the shock, but to anticipate a degree of hyperdistension of the intestine from which it can never recover.

If there is reason to suspect the existence of a further source of obstruction, or if the tension within the distended gut can not be decidedly relieved by simpler measures, I believe laparocolostomy or enterostomy, as the conditions may dictate, is indicated.

Dr. SANDS remarked that in Dr. Weir's case the failure to recognize distension of the cæcum was probably due to the existence of a band at the upper part of the rectum which prevented the hand of the operator from making the usual excursion. In one case he had been able easily to ascertain, by manual exploration of the rectum, a distended state of the cæcum, the patient having a stricture situated in the sigmoid flexure.

Dr. WEIR remarked that he had heretofore regarded manual exploration of the rectum as a reliable means of determining whether or not the cæcum was distended.

Dr. SANDS further remarked that in inserting the tube with the view of determining the presence of a stricture, it should be remembered that the constriction might be sufficiently close to cause abdominal obstruction, and yet not be so narrow as to prevent the passage of the tube. This condition was exemplified in a case he had already narrated to the society, in which the ordinary black French tube was passed a distance of eighteen inches without encountering any obstruction. When the patient died, a cancerous stricture of the rectum was found between six and seven inches from the anus, just large enough to allow the passage of the tube. Dr. Sands said that Simon had shown conclusively that it was impossible to pass an elastic tube beyond the splenic flexure of the colon, and that, in cases where a great length of tube had been introduced, the end of the tube had been arrested at the splenic flexure, the mesocolon allowing the tube to curve toward the right side.

Dr. WEIR asked Dr. Sands concerning the value of exploration by means of the tube in any portion of the large intestine below the splenic flexure. He himself had already attached considerable value to such exploration if properly and repeatedly performed.

Dr. SANDS regarded such exploration as very valuable.

Dr. A. G. GERSTER had observed a case somewhat similar to the one related by Dr. Halsted. In his case, however, he was able to detect at the operation the site of the obstruction. The patient was a boy thirteen years of age, who had suffered from peritonitis eight weeks previous to his last sickness. The peritonitis had subsided under the ordinary plan of treatment, and the patient had recovered to such an extent as to be able to go to school. Two weeks afterward he was attacked by something which appeared like peritonitis. Morphine was administered, and he seemed to improve under the treatment so far as to permit the physician to attempt to evacuate the bowels by means of an enema. From the moment the enema was administered, very violent and alarming symptoms of intestinal obstruction developed. The chief reason why the effort was made to evacuate the bowels was the complaint of fullness of the abdomen and entire absence of pain upon pressure. The symptoms which developed after the administration of the enema were intense vomiting and depression of the general system, with severe pain. The attending physician proposed to administer quicksilver to overcome the intestinal obstruction. A second physician was called, who found marked depression of the general system, feeble pulse, continued vomiting, and clammy perspiration, despite the narcosis which had been produced by morphine. Marked tympanites also existed. The child, when aroused from his semi-comatose condition, always pointed to the left side of the belly as the seat of the pain. Dr. Gerster saw the patient in consultation, and proceeded to surgical interference for his relief. He made an incision which extended from the umbilicus almost to the symphysis pubis. Immediately upon opening the abdominal cavity, the distended bowels rushed out through the incision and filled it so full that it was impossible to form any adequate idea with reference to the position or condition of the abdominal contents. He extended the incision sufficiently far to admit of a full view of the

abdominal contents, and then introduced his hand and felt most of the intestines to be movable, except one bunch, consisting of four or five loops, which were anchored in the right iliac fossa. Separating the loops of intestine constituting this bunch, he found they were bound down by a band one fourth of an inch in width, which passed across one loop of the mass and formed the true cause of obstruction. Upon closer examination, it was also ascertained that this apparent band was the vermiform appendix which had become evidently attached to the abdominal wall during the previous attack of peritonitis. It had passed across a portion of the ileum about five inches from the cæcum, and its apex had become attached to the mesentery of the ileum upon the other side. The upper portion of the ileum and small intestine were intensely distended and hyperæmic, and the lower portion was pale and normal, as was also the large intestine. There was no evidence of acute peritonitis at the time of the operation. He applied a stout double catgut ligature to the band or vermiform appendix, and divided it between the ligature, whereupon the intestinal contents immediately rushed from the superior to the inferior portion of the ileum. Dr. Gerster then experienced great difficulty in attempting to replace the intestines within the abdominal cavity. Hoping to diminish their distended condition, he introduced the smallest sized hypodermic needle, but the escape of gas was so slow that he withdrew the needle, intending to perform a large number of punctures; but when the needle was withdrawn he noticed that one minute drop of intestinal contents followed, and appeared upon the external surface of the gut. He wiped the surface of the gut very carefully, and then introduced an elastic catheter into the bowel through the anus and administered an enema, his idea being that, the obstruction being removed, probably a portion of the intestinal contents could be removed in that way. The plan proved to be perfectly successful; the injection of hot water through the catheter brought away fæces, and a large quantity of gas also escaped, followed by solid faecal masses. After the evacuation had occurred the intestines collapsed so much that no serious difficulty was experienced in restoring them to the abdominal cavity, and the wound was closed. The abdominal cavity was not exposed longer than twenty-five minutes, but the patient died of collapse about eleven hours after the operation.

Dr. HALSTED remarked that he also introduced a fine hypodermic needle into the distended intestines in his case, and observed precisely the same thing which Dr. Gerster had mentioned—namely, the exit of a small drop of intestinal fluid upon the withdrawal of the needle. Only a small amount of gas escaped, and that very slowly. Furthermore, Dr. Weir had retained the intestines in position to a considerable extent by means of towels which had been dipped in warm carbolized water, and after some manipulation they were returned to the abdominal cavity.

ENCYSTED NEEDLE IN THE LEG.—Dr. Post presented a portion of a large needle inclosed in a cyst which he had removed from a woman's leg about a hand's breadth above the internal malleolus. The patient was forty-five years of age, and gave the history that the portion of needle had been in this position during the last twenty-five years. The point of special interest in the specimen was that the needle was firmly encysted, the cyst as exhibited in the specimen almost completely surrounding it. At first it caused but slight irritation, and subsequently gave the patient no trouble whatever until a short time before she applied to him for relief. The needle was a large one, and the portion removed was two centimetres in length.

AFTER EVAPORATING AN AQUEOUS SOLUTION OF GASTRIC JUICE PREPARED FROM THE STOMACH OF A SHEEP, Mr. J. Chapoteaut obtained a pepsin capable of dissolving 2,000 times its weight of fibrin.—*Times*.

PATHOLOGICAL SOCIETY OF PHILADELPHIA.

A REGULAR meeting was held December 14, 1882, Dr. JAMES TYSON, President, in the chair.

MITRAL OBSTRUCTION WITH SEQUENTIAL LESIONS.—Exhibited by Dr. E. P. BRUEN. I submit this specimen because it favorably illustrates the lesion and the sequential changes in the different chambers of the heart. The auriculo-ventricular opening of the left heart is nearly occluded by an epiglottic-shaped enlargement of one of the leaflets of the mitral valve. The valve is very much thickened, and the focus of a considerable calcareous deposit. The orifice during life permitted a reflux of blood from the ventricle into the auricle. The left auricle is dilated and hypertrophied, so that its cavity is about twice as large as normal. The right ventricle is very much dilated. The walls of this cavity are less than half the normal thickness, and the ventricle must have had during life twice its physiological capacity. The tricuspid valves were insufficient on account of the dilatation. The considerable enlargement of the left auricle and right ventricle occasioned during life a broadening of the area of dullness on the level of the third and fourth ribs—viz., the apex of the cardiac triangle. It also produced a decided increase in the area of the cardiac dullness to the right of the median line of the sternum. In children, the heart, with similar enlargement, encroaches upon the left pleural cavity to such an extent that the physiological inflation of the left lung can not occur. Bronchial breathing is produced, audible posteriorly, while anteriorly below the second interspace no respiratory murmur is audible. In these cases, when the complication of bronchitis occurs, the physical signs suggest a pleural effusion. Enlargement of the right ventricle, both in children and adults, causes a pronounced impulse at the epigastrium, and occasions serious pain and inconvenience. The murmur heard during life in the case from which my specimen was taken indicated this lesion, both presystolic and systolic murmurs being audible. The second sound at the pulmonary artery cartilage was also much accentuated, owing to the repletion of that vessel with blood. The first sound over the right ventricle was very clear and distinct, as is common in these cases, but the first sound at the apex was obscured by the murmur. The patient from whose body these specimens were removed was a woman aged forty-six years, who had been subject to heart disease since twenty. The immediate cause of death was pulmonary repletion with blood, which induced right heart failure. Compared with cases of mitral regurgitation, this mode of death illustrates a feature of the clinical pathology of mitral obstruction. In mitral regurgitation death occurs with heart failure, but usually after serious dropsy. In mitral obstruction dropsy is not so prominent a symptom; but the pulmonary engorgement prevents a perfect supply of blood to the aorta. The right-ventricle failure in cases of mitral obstruction brings about death in the same manner as left-ventricle failure does in cases of aortic obstruction.

PERICARDIAL EFFUSION AND ADHESION OF THE PERICARDIUM TO THE APEX OF THE HEART, MISTAKEN FOR HEART RUPTURE.—Exhibited by Dr. J. T. ESKRIDGE. Dr. Eskridge said that in this case the physician making the autopsy actually considered the specimen to be one of heart rupture. The patient was an athletic young man, and perfectly well until a few days before he sought medical advice. He was under treatment for only twenty-four hours, suffering from cardiac pain and great prostration. He died, suddenly and unexpectedly, when no one was near him. The attending physician, who made the post-mortem examination with no professional assistance, reported effusion in both pleural cavities, the pericardium distended with thin, non-coagulated blood, and a rupture of the left ventricle. Dr. Eskridge said that a careful examination of the heart, peri-

cardium, adjacent glands, and portions of the larger bronchi showed marked evidences of pericarditis and pleuro-pericarditis. The pericardium was adherent to the lower third of the heart, but the adhesions were recent and easily severed. The heart was not much enlarged, its valves were nearly normal, and its muscle firm. No rupture was found. He believed that the case was one of pleurisy and pericarditis with effusion, death taking place suddenly from mechanical interference with the heart and lungs. He thought that the most plausible explanation of the doctor's mistake in calling it a case of cardiac rupture was that, when severing the blood-vessels around the heart, blood flowed into the pericardium and mingled with the serous effusion. He did not think that a firm, non-fatty heart could rupture itself by its own contractions. If the pericardium was filled with effusion, in that instance it taught a lesson of far more practical value than a case of cardiac rupture under similar circumstances would. It was evident, if the pericardium should be attached to the apex of the heart in a case of pericardial effusion, in which operative interference was determined upon to free the heart's action, a thrust of the trocar into the pericardium would greatly endanger the ventricular walls.

SEVERAL SPECIMENS OF EYES ENUCLEATED ON ACCOUNT OF SYMPATHETIC IRRITATION IN THE OTHER EYE, OR FOR FEAR OF ITS DEVELOPING.—Exhibited by Dr. LITTLE. Sympathetic irritation and sympathetic ophthalmia are the only two forms of the sympathetic diseases of the eye that afford an opportunity for pathological study, and in these cases only the enucleated eye can be investigated; just what are the conditions in the eye protected by the enucleation of the other eye, primarily at fault, must remain uninvestigated; if full restoration of the function of vision is attained in the one sought to be protected by the enucleation of the fellow-eye, great satisfaction only is felt. Less and less opportunity is being afforded of studying the condition of an eye enucleated for the presence of sympathetic ophthalmia in the other eye, since merely the sympathetic irritation of the sound eye impels the surgeon to enucleate the primarily affected eye before true sympathetic ophthalmia asserts itself. The portion of the eyeball which renders liable the development of this affection when diseased is so well known that not even sympathetic irritation should be allowed to develop, as an early enucleation will prevent it. Enucleation of the primarily diseased eye when true sympathetic ophthalmia is present in the other eye is now questionable, as, after all inflammation has subsided under treatment, surgical procedures upon the primarily affected eye may afford the best results for visual purposes. A recent experience would bear him out in this statement: the patient refusing the advice of a former medical attendant, and also his own, after two months, suddenly developed sympathetic ophthalmia of the sound eye. Enucleation was then too late. Now both eyes were becoming quiet, and he was in doubt which in the end would be the more available eye. A physician, recently under treatment for a severely traumatized eye, had refused the advice of two surgeons, and was now doing well, but the danger of a sympathetically irritated eye was constantly before him. The pathological investigation was, then, mainly restricted to eyes enucleated before or after sympathetic irritation had developed in the other eye, as results showed that under such circumstances full protection to the remaining eye was afforded. Investigation of eyes enucleated when sympathetic ophthalmia of the other eye was present might explain the cause of the trouble in the remaining eye, but there was so much damage done to both that our knowledge only makes us the more desirous to prevent these conditions from arising, and, in the multiplicity of conditions, the principal cause is lost. When enucleation to forestall sympathetic irritation or ophthalmia was done, or when the operation was performed, sympathetic irrita-

tion just beginning or present, the eyeball removed was in a much better state to examine, and more light could be thrown on the cause of sympathetic irritation, since severe inflammatory processes cloud the change from sympathetic irritation to that of sympathetic ophthalmia, and the pathological study was more difficult. His collection contained only one specimen enucleated when sympathetic ophthalmia was present, and, in this case, there was a double acute glaucoma with sympathetic iritis. At this time he only desired to exhibit some specimens of eyes enucleated for the protection of the fellow-eye from sympathetic irritation, or in which it was already beginning or developed, and in these cases good and permanent results have been attained. Four of these cases were due to traumatism; the fifth was of an inflammatory character. All but one of the traumatic cases had the fellow-eye affected, and the examination of the enucleated eye in the exceptional case justified the operation. In two cases the sound became affected shortly after the injury to the enucleated eye. In one case no irritation until forty years had elapsed since the accident to the enucleated eye. In one non-traumatic case there were repeated attacks for a series of years of irritability in the sound eye, until the pain in the diseased eye and the disturbance of the sound eye compelled operation. In the remaining traumatic case, for twenty years the uninjured eye was unaffected, except rendering the myopia more progressive, which rendered an operation imperative for its arrest and to prevent the outbreak of sympathetic ophthalmia later in life. The patients were aged, respectively, three years, forty years, forty-seven years, fifty years, and seventy years. Three of the patients were males, and two females. In four cases the left eye was enucleated, in one case the right. In every case the injury or disease involved, directly or indirectly, the ciliary body, and, where the crystalline lens remained *in situ*, or the sclerosed tissue impinged most markedly on the ciliary region, the irritation progressed most rapidly in the other eye. Where the crystalline lens was dislocated with weakening of the sclerotic tissue, no irritation appeared for forty years in the other eye. In one case with dislocation of the lens and detachment of the retina and choroid, no irritation had appeared at the end of twenty years in the other eye. In those cases where the iris became entangled in the cicatrix, sympathetic irritation of the other eye developed most rapidly, in one instance the lens becoming cataractous in the sound eye, while that of the injured one was either absorbed or lost at the time of accident. In short, was it not to injury of the ciliary nerves, with their varied function, and to the damage done to the tissue, in which they are imbedded in the different divisions of iris, ciliary body, and choroid, that we were to look as the cause of sympathetic irritation in the fellow-eye, and of these the ciliary body and nervous structures in it, with or without involvement of the iris, as the principal part involved? When sympathetic ophthalmia arises in the sound eye, could it not be traced to inflammatory processes added to the irritation of the ciliary nerves and involving the iris, ciliary body, and choroid? How far the retina and optic nerve participate in sympathetic irritation it was difficult to say; only we find that in sympathetic enucleation for sympathetic irritation the fellow-eye regains the full function of sight. In sympathetic ophthalmia, however, the involvement of the nerve and retina was a more important factor, and the fellow-eye was not so likely to be restored to full function of sight, as the condition in the enucleated eye and the one affected were more serious on account of marked inflammatory processes. [Dr. Little then gave in detail the histories of his cases, but, all essentials having been already given, their publication will be delayed until the next volume of the proceedings of the society appear.]

STAB OF THE PERICARDIUM, DIAPHRAGM, AND LIVER.—Exhib-

ited by Dr. STRITTMATTER. The specimens were removed from a German laborer, aged sixty-two, a patient, who was admitted July 16, 1882, in the surgical wards of St. Mary's Hospital, under Dr. Mears. He had been laboring for some days under a mental delusion, and, after writing a clear, intelligible letter to his wife and family in Germany, stabbed himself several times with a clasp-knife in the right side of the chest, notwithstanding all efforts of the bystanders to prevent him. He was at once taken to the hospital, and, on admission, was much excited, with a rather flushed face, but little shock, and struggled to escape from the punishment of his supposed crime. Examination showed two wounds: one over and reaching down to the cartilage of the sixth rib of the right side about one and a half inch from the sternal border, and about two inches in length; the other, half an inch from the border of the sternum, and severing from it the cartilages of the seventh and eighth ribs. Closer examination of this wound showed that there were two openings through the costal cartilages about a line apart, the outer passing downward, outward, and backward; the inner, in a direction inward, downward, and backward. Through these openings air occasionally passed when the patient respired violently when struggling, causing a high-pitched, sucking, and blowing sound. Slight bleeding took place, and that from the integument only. Physical signs everywhere normal except over the lower part of the right lung, where increased resonance was noted, and, on heavy percussion, a kind of "cracked-pot sound" was elicited. Auscultation revealed diminished breathing sounds over the upper part of the right lung, while respiratory sounds were entirely absent over its lower portion. Heart's action rapid and irregular. Heart sounds feeble, especially the first. Pulse 112, respirations 42 and shallow. There was no sign of internal hæmorrhage. Both during inspiration and expiration, when the head and shoulders were raised, and he inspired deeply, a peculiar, high-pitched, blowing sound was occasionally heard a little to the left, and below the ensiform cartilage. It did not resemble the sounds produced by gas in the stomach or bowels. Anti-septic dressings were used, and morphia given, but he slept little, although nothing was complained of beyond a burning sensation beneath the sternum. The next morning he was calmer, rational, felt pain only during inspiration, and altogether breathed more easily than during the night, although the physical signs remained the same. The abdomen was tympanitic, the pulse full and moderately strong, 92 per minute, respirations 32, and expiration labored, with groaning. Temperature 101.6°. During the next night grew worse, with restlessness, poor sleep, followed in the morning by cutting pains in the chest at each inspiration; anxious, pinched face, and considerable anxiety as to his condition. Friction sounds were now heard over the whole of the left chest, and in the right side from the apex to the fourth rib. Pericardial friction sounds were also heard. Pulse 100, full and hard; respirations 48, with rapid, jerky inspiration, abruptly terminating, to be followed by a forced, prolonged groaning expiration. Temperature 103.2°. Evening pulse 120, respirations 44, temperature 103.2°. During the next twenty-four hours all the symptoms, physical as well as rational, of effusion into the pericardium and both pleuras developed, but, although the abdomen was tympanitic, no signs of effusion were detected. Pulse in evening 120, irregular, intermitting; respirations 40, temperature 101.8°. Had a bad night, and next morning seemed much prostrated, with a feeble, occasionally intermitting pulse of 120 per minute; temperature 102.8°; respirations 40, labored and shallow. Low, muttering delirium now set in, he sank rapidly, and died at 2 P. M. of the 20th, with a temperature of 105.5. [The surface temperature record, not showing anything of very decided interest, is omitted.]

Sectio cadaveris.—Brain: pia mater adherent, thickened in

patches, and opaque, especially on either side of the vessels, which were filled with dark blood over the upper convex surface of the left hemisphere. There was a slight amount of serous effusion in the subarachnoid space. The ventricles contained a small amount of serum. Chest: on raising the sternum, the right pleural cavity was seen filled with a thick, fatty-looking effusion, with some bands of recent lymph extending from the lung to the chest-wall. The apex of the lung was quite firmly adherent to the chest-wall. The anterior surface of the lung was covered to the depth of one quarter of an inch with soft, grayish-yellow lymph. A portion of the back part of the inferior lobe was consolidated. The left pleural cavity was only about half filled, with the same thick layer of lymph and adhesion of the apex that was noted in the right lung. No part of the left lung would sink in water. The pericardial sac was distended with fluid, and both upon its inner surface and upon that of the heart was an abundance of lymph connecting the two surfaces by drawn-out bands of the same. There was a large chicken-fat clot in the left ventricle, extending about six inches into the aorta. The right ventricle was filled with blood, with a small clot extending into the pulmonary artery. Examination showed that while there were but two penetrating wounds externally, the knife must have been thrust in repeatedly after partial withdrawal, as there were three openings through the diaphragm, penetrating the liver to the right of its suspensory ligament, and one traversing the lower part of the pericardial sac and entering the left lobe of the liver for about one inch. The other liver wounds were one quarter, one half, and one sixth of an inch deep. There were no traces of peritonitis, although about two ounces of serum was present, probably escaped from the pericardial sac through the wound. The liver wounds did not gape, were ununited and surrounded for about an inch in every direction by a brownish-yellow discoloration. The liver weighed sixty-two ounces; spleen enlarged and soft; other organs healthy. [Owing to want of space, the remarks of Strittmatter have been omitted, to appear in the next volume of the society's Transactions.]

Remarks by Dr. MEARS: I was much interested in this case. During life, the symptom of wound of the diaphragm and of the liver were markedly absent, while those of injury of the pericardium and pleura developed as the interval after the receipt of the wounds increased. The external wounds gave little indication as to the direction taken by the knife after puncturing the thoracic cavity, and, as shown by the post-mortem examination, no information as to the extent of injury inflicted. The absence of symptoms of injury of the diaphragm may be explained by the fact that the wounds were in the tendinous portion of that muscle, and, being small, did not interfere to any great extent with its function in respiration. In injuries causing laceration of the muscular fibers attached to the ribs, dyspnoea occurs as a prominent symptom by reason of the impairment of the respiratory duty of the muscle. Moreover, the symptoms may have been masked by those referred to the injury of the pericardium, as in wounds of both of these structures dyspnoea is a prominent symptom. The knife, in one of the thrusts, passed through both and involved them in a common injury. The only explanation I can offer of the production of the blowing, or, rather, suction sound, which was heard under the ensiform cartilage, is that it was occasioned by the passage of air, during respiration, through the openings in the diaphragm, the air entering primarily the lung cavity through the external wound. The fact that the air did not pass in and out of the external wound during the act of respiration afforded good evidence that the lung was not wounded. The wounds of the liver were of such character as to make little or no impression beyond what might occur as the result of injury to the coverings and superficial portions. Puncture of the liver with a trocar is frequently per-

formed with a view of evacuating fluids. Instances are reported in which no fluid has been found and no harm has been inflicted by the tapping. Extensive lacerations, the result of gun-shot wounds or rupture following falls, produce characteristic symptoms of shock and internal hæmorrhage.

SECONDARY SARCOMA OF HEART, LUNGS, AND GALL BLADDER FOLLOWING PRIMARY AMPUTATION FOR DEPOSIT IN THE FEMUR.—Presented by DR. WILLARD. The specimens exhibited were the heart, lungs, and gall-bladder of a female patient, aged twenty-one, whose right thigh had been amputated four months previously for a spindle-celled sarcoma of the lower end of the femur. The apex of the right ventricle was infiltrated with a sarcomatous mass which extended into a cavity among the columnæ carneæ, forming an irregular-shaped body occupying one fifth of the space. The walls were softened, and but little of a muscular fiber was to be seen at the apical region. The diseased tissue was very soft, and easily detachable, rendering its propulsion into the lungs a matter of exceeding probability at each heart-beat. The walls above the mass were natural in appearance and in thickness. The valves showed no evidence of disease on either side of the heart. The left ventricular and both auricular walls were healthy. The disease had not reached the visceral layer of the pericardium, and there was no abnormal effusion in the cavity of the sac. The septum ventriculorum was not involved. That numerous particles had been swept into the lungs was very evident when these organs were examined. At a large number of points in either lung were to be seen white masses varying in size from that of a pin's head to that of an English walnut. Some of these were dense, others were undergoing softening, and in nearly every instance the lung substance surrounding was so disintegrated that the mass seemed to be in a cavity containing a drachm or more of sanguinolent fluid. A very moderate degree of pressure would cause a nodule near the surface to burst its pleural covering and give rise to an accident similar to the one which was found to have occurred near the right apex. At this point a large sarcomatous mass had excited a degree of inflammation sufficient to fasten the lung to the parietal pleura, and, one week before the patient's death, ulcerating through the serous covering had given rise to an intenal hæmorrhage that was well-nigh fatal and gave the symptoms of sudden collapse noted in the history. This escaped blood was found in the right pleural cavity confined by adhesions chiefly to the upper portion of the chest. In the week which elapsed between the hæmorrhage and death it had coagulated, formed chicken-fat clots and other coagula weighing fully two pounds. The pleural cavity below the adhesions contained about two quarts of bloody serum. There was no consolidation of the lungs save around the diseased foci. The lungs had evidently acted as a complete strainer, and had prevented the passage of emboli, for liver, kidneys, spleen, and all other organs were healthy save one small spot in the gall-bladder. The brain was not examined. The primary disease in the femur had apparently resulted from traumatism, since no difficulty had existed previous to a severe fall upon the knee. From this time the pain on walking was continuous, and four months later there was decided enlargement of the external condyle and swelling in the popliteal space. The chief points of interest in the case were: First, the traumatism acting as an exciting cause. Second, that the physician who first saw her detected neither fracture nor luxation, nor anything beyond contusion of the joint. Third, the appearance, at the end of four months, in the popliteal space, of a pulsating tumor which presented a decided bruit, but no thrill. This was due to the lifting of the artery from its bed by the sarcomatous mass. Fourth, the non-involvement of the knee joint, although the nodules had pushed forward the synovial membranes between the condyles posteriorly. The articular

cartilage of the femur was intact, although the bone-tissue immediately beneath it was extensively diseased. Fifth, the return of the disease, not in the stump, but first in the right ventricle, and to failure in circulation and great prostration, which came on from four to six weeks after the amputation, and without anything in the condition of the stump to warrant such depression. The patient seemed in articulo mortis, yet there was no pain and no dyspnoea; only a feeble, rapid heart action, accompanied by low delirium and weakness. There were no valve sounds audible. These symptoms were due, as shown post-mortem, to the deposit and development of the sarcomatous mass in the heart. Nature, however, gradually accommodated herself to the new growth, and the patient rallied for a time, so as to be able to walk on crutches, eat heartily, and consider herself in good health. She got fatter, and only slight dyspnoea on exertion, with three or four coughs a day, remained to indicate recurrence of the disease. Sixth, a sudden, causeless as to exertion, profuse hæmorrhage from the collapse, incident to which she rallied and lived one week, with respirations 30 to 36, pulse 130 to 140. Seventh, the primary and consecutive growths showed a preponderance of spindle cells, while the secondary nodules were composed chiefly of round cells. Eighth, the post-mortem examination throws great light upon the clinical symptoms, while the great rarity of sarcoma of the heart makes it important to note that there was never any angina pectoris. In Dr. Ingram's report of a case called Carcinoma of the Heart, in the Transactions of this society for 1877, the only case ever presented to this society, angina pectoris was indicated as one of the diagnostic points. In the report of the Committee on Morbid Growths, Dr. Ingram's specimen was shown to be really an alveolar sarcoma. Secondary sarcomatous growths of the heart are mentioned by various authors, but the histories give no clinical signs of the growths. Dr. Barton said that, in regard to traumatisms causing morbid growths, he considered that they probably had no more causative effect than acting as exciting causes. Dr. Formad asked if the exact nature of the primary growth was known, whether it consisted of round or spindle cells, since it has been stated that the spindle-celled variety never form metastases. Dr. Seiler replied that the primary growth consisted of both round and spindle cells. Dr. Shakespeare agreed with Dr. Barton as to the origin of the primary growth. He did not think that injuries were anything more than exciting causes in those predisposed to such growths. The case presented a typical example of the method of metastasis; we have the growth first developing at the knee, whence particles were carried by the veins to the heart, become there lodged, and develop into a tumor, which forms a new center from which microscopic emboli are carried by the blood-current into the lungs, where they lodge, and grow into the nodules seen in the specimen. Metastasis of sarcoma occurs by means of the blood-current, while that of carcinoma takes place through the lymphatics. Dr. Formad could see no other cause for the tumor than the injury of the knee, previous to which the patient had never shown any symptoms of disease of the joint, while shortly after receiving the injury the tumor appeared. The tumor may not necessarily be malignant; there is an inflammation and the formation of cells; the malignancy will depend upon the looseness of the cells and the facility with which they can be transported.

Dr. C. R. MILLS then read a paper on THE BRAIN IN EPILEPSY, which, not admitting of abstract, will shortly be published in full.

Dr. BRUBAKER presented a specimen of TUMOR OF THE BRAIN, which, with the accompanying paper, was referred to the Committee on Morbid Growths, whose report, with the paper, will appear at some future time.

C. B. NANCREDÉ, M. D., *Recorder.*

Reports on the Progress of Medicine.

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BY ALEXANDER DUANE, M. D.

PRIMARY ENDOCARDITIS.—In a paper read before the British Medical Association ("Brit. Med. Jour.," Nov. 11, 1882), Dr. A. J. Harrison, after detailing three cases of endocarditis, occurring without arthritic lesion, maintains that the occurrence of the disease in this way as a primary disorder is not very rare, especially in those predisposed to rheumatism. He is inclined with others to regard endocarditis as one of the regular symptoms rather than one of the frequent sequelæ of rheumatic fever. [It has been held (by Haskins) that the heart lesion is actually the initial feature of every rheumatic attack, and that its presence can always be substantiated by physical signs. And this author accordingly advocates counter-irritation over the heart as the only rational method of treatment in all fresh cases of rheumatism. Others, while acknowledging the constancy of the presence of roughened heart sounds in rheumatism, do not consider that this sign possesses the significance which Haskins assigns to it.]

THE ORIGIN AND NATURE OF TUBERCULOSIS.—A paper read before the New York Academy of Medicine by Dr. T. E. Satterthwaite ("Med. Record," Oct. 28, 1882) and the subsequent discussion show that a tolerable uniformity of opinion exists at present upon the subject of tuberculosis, at least in the minds of New York pathologists. The general conclusion was that pulmonary phthisis almost invariably implied pulmonary tuberculosis; that we had not yet sufficient grounds for believing in the bacillary and infective nature of tuberculosis, although there were some grounds for believing in its communicability by cohabitation; that, however, bacilli of a peculiar character were frequently to be made out in phthisical sputum; and, finally, that tuberculosis, however generated, was essentially inflammatory as far as its lesions are concerned.

In a scholarly paper ("Maryland Med. Jour.," Nov. 1, 1882), Dr. W. T. Councilman reviews the different discoveries which have furthered the view that tuberculosis is an infectious disease, he himself being strongly of the opinion that this view is the correct one. In his own investigations he has been almost uniformly successful in discovering specific bacilli in tuberculous sputa.

Dr. H. F. Formad ("Phila. Med. Times," Nov. 18, 1882), while acknowledging that bacilli are regularly present in tuberculosis, asserts that they have no specific influence in causing the disease, although they may serve to aggravate its intensity. His own theory of tuberculosis is that individuals become tuberculous by virtue of a peculiarity of anatomical structure, consisting of a narrowing of the circumvascular lymph channels, and of their partial obliteration by cellular elements; that, in this condition of things, when inflammation takes place from any cause whatever, the inflammatory products, instead of being carried off by the lymph in the ordinary way and so eliminated, remain behind, degenerate, and form tubercles; and that these, by their pressure, induce necrotic changes in the surrounding tissues. The narrowing of the lymph spaces may be congenital, as in some species of animals and in some classes of men; or it may be induced by malnutrition, as in animals kept in confinement, or in cases of acquired tuberculosis in man. Tuberculosis may also be induced in persons with no tuberculous tendencies by a simple inflammation of the larger serous cavities; and Formad suggests that this may be due to the rapidity with which

absorption takes place in such cases, so that the lymphatic channels are overcrowded and their caliber is diminished.

NERVE-STRETCHING.—Dr. A. Ceccherelli ("Sperimentale," Sept., 1882) has published an exhaustive review of over a hundred papers upon nerve-stretching. In discussing the subject in its physiological aspects, he asserts his belief that the results of the numerous experiments which have been made to determine the extensibility of nerves and the amount of traction force which they can bear are not applicable to the conditions existing in the living human body, and so can form no guide to the surgeon in estimating the degree of force which he can use in the operation. The pathological changes which have been observed after nerve-stretching consist chiefly of extravasations and of degenerative changes, affecting either the perineurion, the vessels of the nerve, or the ultimate nervous fibrils. The general effect of these changes is to produce diminution of sensory conductivity without impairment in capacity for motor impulses, unless the traction force is very great, when also disturbances may occur in the nutrition of the nerve and the tissues supplied by it. In what way this effect is brought about is a disputed point, some, with Vogt, referring it to local alterations in the circulation, or the relations to surrounding parts of the nerve itself or its peripheral branches, while others regard it as due to consecutive changes in the cord. The latter opinion seems entitled to the greater confidence, and is held by most observers. One argument in its favor is the bilateral character of the effects obtained after stretching the nerve upon one side. As to the operation itself, it may be done either without incision by forced extension of the limb, or in the ordinary way by exposing the nerve and employing direct traction. The amount of force to be used has excited much discussion. Some lay down the rule that in cases of paralysis moderate traction should be employed, but in cases of neuralgia, tetanus, and contracture, a considerable degree of power is to be exerted. The results of the operation in affections of the nerves themselves—in neuralgias, contractures, and peripheral paralyses—are very favorable. In locomotor ataxia no decisive results have as yet been obtained. In other central nervous lesions the propriety of the operation is doubtful. In tetanus it may do good by diminishing the excitability of the afferent nerves.

CHYLURIA AND THE FILARIA SANGUINIS.—Dr. W. Havelberg ("Arch. f. path. Anat. u. Physiol. u. f. klin. Med.," lxxxix, 2, 1882) describes a case of *chyluria* in which death occurred with symptoms of increasing inanition after the discharge of chylous urine had persisted six months. In this case, from the results of autopsy, there appeared to exist a thrombosis of one of the larger branches of the thoracic duct, with subsequent chylous ascites and dilatation, with rupture of the lymphatics in the bladder-walls. In the blood, and occasionally in the urine, the *filaria sanguinis* was found during life, and the author presents several illustrations of the parasite, and a description agreeing in general with that given by other observers. The animal, which, as it occurs in this situation, is the embryonic form of a nematode worm, whose adult form is found in the dog, has a body of about the diameter of a red blood-corpuscle, and a length of a hundredth of an inch or more, and is provided with a membranous envelope attached closely to the cephalic but loosely to the caudal end. In some specimens there appears to be a canal running through the entire length of the animal. Havelberg follows Manson's description of the development of the parasite, and of its transmission by means of the mosquito. [We have had the opportunity of observing a case of *chyluria* reported by Dr. Abbe in this journal several years ago. In this case *filariae* were present in the blood, although, following the general rule, they were found during the night only. The symptoms ran a very chronic and intermittent course, the most

marked, in addition to vesical tenesmus due to the presence of clots of blood and fibrin in the bladder, being boulimia, thirst, emaciation, and a tendency to furunculosis—a combination of symptoms seen so frequently in diabetics. All varieties of treatment—medicinal, dietetic, and topical—were tried, but, as Havelberg remarked in regard to his own case, no treatment seemed of any permanent efficacy. — The autopsy in Havelberg's case revealed a condition very like that found in a case of Dr. Stephen Mackenzie's, in which all the abdominal and thoracic lymph channels were enormously dilated and the thoracic duct was occluded for a portion of its length. In Mackenzie's case, in addition, there were found in a clot taken from the right auricle of the heart countless *adult* filariae projecting in every direction "like long curling strands of whip-cord" ("Brit. Med. Jour.," May 20, 1882.)

TRISMUS OF CEREBRAL ORIGIN.—M. Lépine ("Rev. de méd.," Oct., 1882) gives the details of a very interesting case, in which the only paralytic symptom during life was a persistent tonic spasm of the muscles closing the lower jaw (trismus), and in which autopsy showed a clot as large as a small pigeon's egg upon the left side of the brain, immediately below the gray matter of the insula, and at the base of the ascending frontal convolution. This is almost exactly the location of the center which Ferrier discovered in the monkey, irritation of which produced masticatory spasm. Observations of similar character have before, although rarely, been made; and some of these the author cites.

TRICUSPID INSUFFICIENCY.—M. François-Franck ("Progr. méd.," Sept. 30, 1882) has, by specially constructed valvulotomes, succeeded in producing tricuspid insufficiency artificially in animals, and has thus been enabled to observe the train of secondary symptoms. The latter are thus classified by the author:

1. Changes in the venous circulation. Evidenced by jugular systolic pulsation, dilatation of the veins of the thorax, and hepatic pulsation.

2. Changes in the heart itself. Development of a systolic bruit, whose pitch is in inverse proportion to the extent of the lesion; increased frequency of the cardiac action; diminution in the arterial pressure.

3. Respiratory changes. Increased frequency of the respiration.

4. After a longer or shorter time, the phenomena of general venous stasis—ascites, anasarca, albuminuria, etc.

TRICUSPID MURMURS HEARD AT THE APEX.—M. P. Durioz ("Union méd.," Nov. 12, 26, 1882), after a careful review of the literature of tricuspid murmurs from the time of Lancisi and Laënnec down, and after reciting two cases which he himself had observed, concludes that a tricuspid regurgitant murmur can be heard over the entire anterior surface of the heart, the points of maximum intensity being sometimes at the xiphoid cartilage, sometimes at the cardiac apex, and it may be heard at the latter spot only. It is not, however, transmitted to the axilla, nor is it heard in the back. It is not necessarily associated with venous pulsation.

AMYGDALITIS AND ALBUMINURIA.—M. Laure (*ibid.*, Oct. 17, 19, 1882) signalizes the not infrequent occurrence of an albuminuria, transient in most cases, permanent in others, in conjunction with the various forms of tonsillar inflammation; and, having also found bacteria in the urine in these cases, he suggests that in this and in other acute diseases an accompanying renal inflammation may be dependent upon direct irritation of the uriniferous tubules from the presence of these organisms. [We can recall one case in which we have observed this connection between amygdalitis and albuminuria, the amount of albumin being in direct ratio to the severity of the constitutional symptoms. The possible bacterial origin of the nephritis which

complicates the acute infectious diseases had already been asserted by Eckstein.]

GLYCOSURIA.—Dr. Ord ("Brit. Med. Jour.," Nov. 25, 1882) has observed twenty-two cases of glycosuria in old men, all of which were characterized by the comparative absence of polyuria and of the graver symptoms of the disease, such as profound emaciation, great thirst, etc. This peculiarity which distinguishes the diabetes of old men from that of youthful subjects confirms the author in the belief that glycosuria is an affection of multiple nature. In all of Ord's cases the passage of saccharine urine occurred as a concomitant, either of nervous disease or disturbance (in twenty cases), of gout (in eight cases), of nitrogenous metamorphosis; boulimia is less prominent; the characteristic dryness of the skin may be replaced by sweating; there is a considerable degree of muscular wasting, which is frequently masked by an increased deposit of fat in the subcutaneous tissues; the visual disturbances are more refractory, and mental disorder is more frequent. A chronic form of cerebral softening is a very common complication, and depends, apparently, upon nutritive alterations in both the tissues and the supplying vessels, due to impoverishment of the blood and its overloading with uric acid. Other complications are pulmonary phthisis, pneumonia, carbuncle, gangrene of the extremities, Bright's disease, and the formation of vesical calculi. Changes in the liver are more constant than in ordinary diabetes, and an atrophic cirrhosis may exist. In the treatment an essential factor is a restriction in the use of the strong liquors which are permitted in ordinary diabetes. The dietetic management of the affection, together with well-regulated exercise, constitutes the treatment; although the author also regularly prescribes the bromide of potassium. The prognosis in uncomplicated cases or of albuminuria, if this treatment is faithfully carried out, is good. In seven cases there was a clear history of mental strain or worry; in three, glycosuria was associated with hypochondriasis, and in three others it occurred in connection with locomotor ataxia. In three instances it occurred as an alternate symptom with attacks of angina pectoris. The author suggests that cases of glycosuria associated with gout may be regarded as dependent upon a gouty affection of the liver, with resulting functional disturbance of the latter organ.

M. Bouchardat ("Bull. gén. de thérap.," Oct. 15, 30, 1882) discusses at length that form of diabetes which is associated with an excessive excretion of uric acid (*glyco-polyurique*). It occurs in advanced life, seldom before the age of fifty, and particularly in those who have indulged freely in the pleasures of the table and who have lived sedentary lives. It differs from ordinary diabetes in several regards. Polyuria is less marked and the urine is of higher color, and contains the products in relatively greater amount, or it appears to be dependent upon dietetic errors or the abuse of alcohol. [Etiologically, the diseased condition which Bouchardat calls *glyco-polyurique* seems to be a combination of ordinary diabetes and gout, and, in its multiple nervous manifestations, is quite comparable to the form of glycosuria which Ord describes. That the gouty element is the predominant factor is apparent from the account given by both of these authors, and, as Bouchardat indicates, treatment is most properly addressed to the removal of this factor. Ord's idea, that the glycosuria in such cases is due simply to gouty derangement of the liver, possesses considerable plausibility, and, if true, furnishes another evidence of the Protean character of the gouty dyscrasia.]

THE DIAGNOSIS OF HYSTERICAL PARALYSIS AND ANTERIOR POLIO-MYELITIS.—Dr. A. H. Bennett ("Lancet," Nov. 18, 1882), insisting on the difficulty, and in some cases the impossibility, of making a diagnosis between hysterical paralysis and that produced by polio-myelitis anterior, says that we have two diag-

nostic criteria, which, taken together, will enable us to make the distinction in every case. These are the absence of the reflexes, and the early abolition of electrical reaction in the paralysis of polio-myelitis.

MYXŒDEMA.—Dr. A. McL. Hamilton's article ("Med. Record," Dec. 9, 1882) is a valuable summary of the principal papers upon the subject. He is inclined to the view that the disease is dependent upon a "lesion primarily of the bulb with secondary extension to the postero-lateral columns of the spinal cord and the spinal sympathetic ganglia." He thinks that an associated renal disease is the result and not the cause of the myxœdema.

THE TREATMENT OF DIPHTHERITIC SORE THROAT.—Dr. W. A. Jamieson ("Edinb. Med. Jour.," Dec., 1882), on the strength of one or two observations, strongly recommends in diphtheritic sore throat the local application of a saturated solution of boro-glyceride in glycerin, combined with the internal administration of salicylate of sodium.

INCONTINENCE OF FÆCES IN CHILDREN.—Dr. G. B. Fowler ("Am. Jour. of Obstet.," Oct., 1882) describes two cases in which incontinence of fæces occurred without local lesion and under circumstances similar to those which obtain in incontinence of urine—undue reflex irritability, or loss of muscular tone due to systemic causes. The treatment consisted in attention to the general health of the patient, and in the administration of ergot. Recovery was complete.

THE TREATMENT OF DROPSY.—Dr. D. J. Leech ("Brit. Med. Jour.," Oct. 21, 1882) thinks that we are not justified in ascribing all cases of dropsical effusion to obstructed venous return or diminished urinary excretion, and that, therefore, not every case of dropsy is to be remedied by agents directed to relieving these faulty conditions. Other causes which may co-operate in the production of dropsies, and are more or less removable by treatment, are alterations in the quality of the blood or changes in the blood-pressure, defective innervation of the vessels or the circumvascular tissues, and structural alterations in the vessels and tissues. Of the agents aiming at the removal of the fluid, he puts the mechanical method by tapping in the first place, and in hepatic cirrhosis especially he recommends early and repeated partial tapings as the best method for arresting the disease. In puncturing for subcutaneous oedema, he prefers Southey's tubes as being less liable to cause irritation. When diuresis is resorted to, he employs digitalis or caffeine, holding them to be the most efficient of the vegetable drugs, and of somewhat superior efficacy to the salines.

THE SELF-LIMITATION OF PHTHISIS.—Dr. A. Flint (*ibid.*, Sept. 30, 1882), in a consideration of seventy-five cases of phthisis, which either ended in recovery or remained stationary for a number of years, found nearly half in which this favorable result could not be attributed to treatment, and in which, therefore, a tendency to self-limitation of the morbid process may be supposed to exist. This same tendency, he thinks, is seen in the discontinuous advance of an ordinary case of phthisis, which, it appears, repeatedly dies out and is revived. He is further inclined to the belief that many cases of incipient phthisis, which are diagnosed as such by the physician, have their progress permanently arrested by this same process of self-limitation. In proof of this, he alleges the results of numerous autopsies of subjects who have given no phthisical symptoms for many years, but in which the products of old tuberculous inflammation are found encapsulated in the lungs.

AUSCULTATION OF THE TRACHEA AND MOUTH.—Dr. D. Drummond (*ibid.*, Oct., 21, 1882) finds auscultation of the trachea by means of a stethoscope, with the chest-piece inserted into the mouth of the patient, useful in the diagnosis of tracheal compression, particularly when produced by aortic aneurism, in

which case a systolic whiff is heard with each expiration. Auscultatory percussion practiced on this plan gives valuable indications in pulmonary disease. Thus, in incipient phthisis a peculiar note is obtained, closely resembling "cracked-pot" resonance; in pleurisy a very short, high-pitched note is produced, very different from the lower-pitched, more prolonged, and much louder tone heard if pneumonic consolidation exists.

HEART DISEASE AND NEURALGIA.—M. Potain and others, in a recent discussion before the French Association for the Advancement of Science ("Progr. méd.," Oct. 7, 1882,) cited cases in which neuralgic pains of the left upper extremity, of traumatic origin, were followed by the symptoms and the objective signs of cardiac hypertrophy, together with melancholia. In one instance a similar affection of the left lower extremity had a similar result.

FIBRINOUS OR HYALINE DEGENERATION OF TUBERCLE AND GUMMATA.—Among the degenerative changes to which tubercle and, according to Dr. M. Vallat ("Arch. f. path. Anat. u. Physiol. u. f. klin. Med.," lxxxix, 2, 1882), gummata are subject, is the hyaline or fibrinous metamorphosis. This occurs chiefly in the spleen and lymphatic glands, and appears to take place by a process of thickening of the reticula of the morbid growth itself or of the surrounding glandular tissue, and by subsequent transformation of these reticula into a homogeneous, strongly refractive substance, while the meshes which originally existed in the tissues are converted into lacunæ and canals filled with the débris of cells and with free nuclei. Vallat regards this form of degeneration as preliminary to caseous changes, since in tubercles a center of caseation is often found surrounded by a zone of the hyaline substance, and this again is enveloped by normal tubercle tissue.

Other Noteworthy Papers.

ARNOLD, J.—Beiträge zur Anatomie des miliaren Tuberkels. IV.

Ueber disseminirte Miliartuberculose der Lungen. "Arch. f. path. Anat. u. Physiol. u. f. klin. Med.," lxxxviii, 3, 1882.

BROWNING, W.—The relations and pathology of the Pacchionian formations, and the spaces beside the sinuses of the dura mater. "Am. Jour. of the Med. Sci.," Oct., 1882.

DUJARDIN-BEAUMETZ.—On the treatment of pneumonia. "Boston Med. and Surg. Jour.," Nov. 16, 1882.

HOFFMANN, F. A.—Ueber das Verhältniss zwischen Serumalbumin und Globulin im eiweissführenden Harn. "Arch. f. path. Anat. u. Physiol. u. f. klin. Med.," lxxxix, 2, 1882.

HUGHLINGS-JACKSON, J.—Localized convulsions from tumor of the brain. "Brain," Oct., 1882.

JANEWAY, E. G.—Cases bearing on the diagnosis and localization of cerebral diseases and their difficulties. "Am. Jour. of Neurol. and Psychiat.," Nov., 1882.

SAUNDBY, R.—On the albuminuria of epilepsy. "Med. Times and Gaz.," Oct. 14, 1882.

Miscellany.

INDIAN ENTERIC FEVER.—Dr. R. H. Quill, Surgeon to the Army Medical Department, gives the result of an examination of the annual returns of the sick and wounded troops at Assirgarh, Central India, from 1875 to 1881. The station is completely isolated and the conservancy carried out by the "dry earth system"; the contents of the latrines are emptied into a ravine, two hundred yards from the station, twice daily. The drinking water is carefully filtered. Every precaution is taken to avoid exposure to faecal impurity. During the period just mentioned, not one single case of enteric fever occurred among the troops. The believers in the climatic origin of cases of enteric fever in India very correctly point out that the principal victims of

this fever are young soldiers, with little Indian service; and that the older men, with an Indian service of four or more years, are rarely sufferers from it. Without gainsaying this observation, or attempting to account for it, Dr. Quill would simply say that, for a space of five years, Assirgarh has been occupied by successive batches of young and unseasoned soldiers without the occurrence among them of any type of fever other than the mildest form of ague. The climate of Assirgarh is no better than that of many other stations in the Bombay Presidency, where enteric fever is of only too frequent occurrence; but its isolated situation, and the nature of its surroundings, lessen to a very great extent its liability to faecal contamination of any sort; and herein lies the reason for the immunity it enjoys from the presence of enteric fever.—*British Medical Journal*.

NOCTURNAL ENEURESIS, TREATED BY VOLTAIC ALTERNATIVES.—Dr. Althaus writes to the "*British Medical Journal*" that, "in June, 1882, he was consulted in the case of a boy, aged fifteen, who had suffered from incontinence of urine during sleep ever since he was nine years of age. He had been treated with belladonna and other medicines without relief; and as he was about to enter a public school, where a continuance of this trouble might have been particularly annoying, the parents were very anxious that something more should be done. The boy's general health was good, but he was considered a nervous child, and highly sensitive. There were no ascarides, but he had a very long prepuce, which could only with difficulty be retracted. There was, however, no suspicion of masturbation. Treatment by electricity having been recommended, Dr. Althaus applied the middle-sized circular cathode over the region of the bladder, and the large oblong anode (five inches by two) to the lumbar portion of the spine. The current strength 2.50 milli-amperes for five minutes at a time. As after a few such applications no material benefit appeared to have been gained, he then added fifty voltaic alternatives produced in the metallic circuit. The night after this was free from the usual annoyance, and the boy has made an apparently uninterrupted recovery." Dr. Althaus prefers this method of treatment to injections of nitrate of silver, as recommended by Sir Henry Thompson. He believes that belladonna is of value when enuresis is distinctly caused by undue excitability of the bladder.

THE EFFECT OF TEMPERATURE ON REFLEX EXCITABILITY.—In a paper by Dr. W. T. Sedgwick, an abstract of which we find in the "*Johns Hopkins University Circulars*," the author points out that the work of previous experimenters, which seemed to show that indirect heating of the frog's heart diminished its functional activity, involves essential errors, inasmuch as the nutrition of the heart by a flow of blood through it was not properly taken into account. He also proves that the corollary from the work of those experimenters—viz., that indirect heating of the spinal cord (within the limits of its physiological working) might diminish its functional activity—has no sound experimental basis; and he shows that much more regard must be paid to the influence of temperature and of drying of the skin upon the reflexes of the frog than has been paid hitherto, if any satisfactory conclusions are to be reached.

THE ACTION OF DIGITALIN ON THE HEART.—Dr. H. H. Donaldson and Dr. M. Warfield, as the result of experiments on the slider terrapin (*Pseudemys rugosa*, Shaw), undertaken as a preliminary to investigations as to the action of the drug upon the heart of mammals, conclude, according to the "*Johns Hopkins University Circulars*": 1. When the heart is doing normal work, digitalin decreases that work. 2. There is a rough relationship between the size of the dose and the extent of the decrease. 3. With small doses the pulse rate is at first increased. 4. The diminution in the heart's work is much more dependent on the strength of the dose at any given time than on the total amount of the drug administered. A large amount given in several hours has much less effect than a smaller amount given in a few minutes. Therefore the theory that digitalin has a cumulative action lacks experimental confirmation.

THE POLAR EFFECTS OF INDUCTION CURRENTS ON NERVES.—A paper by Dr. Henry Sewall, abstracted in the "*Johns Hopkins University Circulars*," deals with the influence of very weak induction currents passing between one pair of electrodes on the irritability of the nerve,

as shown by variations in the extent of submaximal muscular contractions, due to stimulation by another pair of electrodes. The results prove that marked polar (analectrotonic and catelectrotonic) effects can be produced by induction currents.

INFECTIOUS DISEASES AND THE LOWER ORGANISMS.—Dr. W. T. Councilman, of Baltimore, assumes, according to an abstract of a recent paper given in the "*Johns Hopkins University Circulars*," that the infectious diseases are caused by the entry of a *materies morbi* into the organism. That this *materies morbi* is a living organism in every case appears to be proved by experiments which show that it is a substance which is insoluble and capable of increase. We know that it is a substance because it clings to inert objects, and can thus be transported from one place to another, or kept any length of time without losing its power; a blanket from a small-pox patient, for example, can be transported thousands of miles and then produce the disease. Chauveau's experiments with vaccine lymph and the experiments which Davaine made with the blood of splenic fever show that it is insoluble. Of all soluble poisons we know that their virulence decreases in a regular ratio with their dilution; on the other hand, no amount of dilution seems to take away entirely the infectious properties of the blood of animals affected with splenic fever, Davaine having succeeded in producing the disease after the blood was diluted 1,000,000 times. The disease, when produced by such diluted virus, differs not at all from that produced from the undiluted virus. That it has the power of increasing is shown from the fact that, having introduced one of the spores of the *Bacillus anthracis* into the circulation of a mouse, in a few hours the whole vascular system will be filled with the bacilli. Now, having an insoluble substance with this power of increasing, of growing, it must be a living organism; it is possible for a soluble substance in a purely chemical manner to produce its like, to increase, but, if a granule multiplies indefinitely, it must divide, and the divided pieces must grow. In quite a number of the infectious diseases we find, either in the blood or in the pathological lesions, a certain organism, and know that on inoculating animals with the tissues containing these organisms an identical disease will be produced. In order to prove that it is the organisms alone that are infectious it is necessary to isolate them completely from the tissues or fluids with which they are associated, and produce the disease by inoculation of the organisms alone. This can be done by the so-called pure culture, by growing the organisms outside of the body and transferring them from one nutrient substance to another until we know that we have them perfectly pure. In the case of splenic fever, tuberculosis, and some other diseases, this has been done, while in other diseases, although we always find a certain definite organism associated with the disease, the strict objective proof that the organism is the cause of the disease is wanting, because we are not able to produce the disease on the lower animals by inoculation of the isolated organisms, nor indeed in any other way. Animals show a perfect immunity to a number of our diseases. The benefits which we have derived, both in prophylaxis and in therapeutics, from these additions to our knowledge are great, and are daily increasing.

PATENCY OF THE DUCTUS ARTERIOSUS.—A recent number of the "*Johns Hopkins University Circulars*" gives an abstract of some observations, by Dr. W. H. Howell and Dr. F. Donaldson, Jr., on the form of the pulse wave and the mean arterial pressure in a dog with a patent ductus arteriosus. The dog was about to be killed, when it was noticed that its cardiac action was abnormal. Professor Donaldson, of the University of Maryland, examined the animal, and found the pulse rate greater and the cardiac impulse more marked than in normal dogs; also, the apex of the heart extended much farther to the left, showing marked hypertrophy. Over the whole cardiac region he observed a loud rasping cardiac murmur with the maximum of intensity over the base; also a slight murmur with the second round. Subsequent experiments showed a normal arterial pressure, and no abnormality in sphygmographic tracings, except an unusually marked diastolic murmur. Professor McLane Tiffany made the post-mortem on the animal, and found that the ductus arteriosus had remained open, its caliber being at least equal to that of either pulmonary artery. It is a fact of much interest that with such free communication between the aortic and

pulmonary circulations so good an average arterial pressure (as measured in the femoral artery) was maintained. It can only be explained by assuming: (1) a compensatory increase in the force of the heart-beat; (2) an increase in the resistance of the pulmonary circuit; or (3) an increase in the total bulk of blood in the body. Whichever of these agencies was the effective one, the case is one of great interest, as indicating the power of the animal body to adapt itself to unusual conditions of life. So far as the authors could discover, only one similar case was previously on record.

INTRACARDIAC PRESSURE AND PNEUMOGASTRIC INHIBITION.—Dr. Henry Sewall and Dr. Frank Donaldson, Jr., from experiments on frogs and terrapins, conclude, according to a summary in the "Johns Hopkins University Circulars," as follows: 1. When the whole heart is employed, increments of venous pressure, the arterial pressure being constant, weaken the cardio-inhibitory action of the vagus. Thus they confirm the results of Ludwig and Luchsinger. 2. Variations of intra-ventricular systolic pressure within wide limits have no perceptible effect on the activity of the vagus. 3. Variation of diastolic intra-ventricular pressure, when uncomplicated by simultaneous variation in auricular pressure, has no effect. They therefore conclude that changes of intracardiac pressure, when experienced by the ventricle alone, are without effect on the cardio-inhibitory function of the vagus. 4. Variations of pressure within the sinus and auricles, the ventricle being entirely separated from them, give the same results as when venous pressure is varied in the complete heart. 5. The effect of variations of pressure within the venous sinus, all the rest of the heart being excluded, is such that raised pressure diminishes the cardio-inhibitory action. The paper concludes with some general considerations on the manner in which the vagus exerts its inhibitory action upon the heart.

THE CORONARY ARTERIES AND THE SEMILUNAR VALVES.—In a recent number of the "Johns Hopkins University Circulars" we find an abstract of a report of certain observations on the mean pressure and the characters of the pulse wave in the coronary arteries of the heart, by Dr. H. Newell Martin and Dr. W. T. Sedgwick. The object of the authors was, by a critical experiment, to endeavor to settle the long-disputed point whether the aortic semilunar valves close the mouths of the coronary arteries during the systole of the left ventricle of the heart. If the valves act in this way, the pulse wave in the coronary arteries of the heart must differ essentially, both in form and in the period of its maximum intensity, from the corresponding wave in the carotid artery. Simultaneous tracings taken in a branch of the left coronary artery and in a carotid artery agree in every respect. Hence the Thebesius-Brücke doctrine as to the closure of the orifices of the coronary arteries during ventricular systole and as to the resulting "Selbststeuerung" of the heart must be abandoned.

SIR WILLIAM GULL ON SCIENTIFIC MEDICINE IN GENERAL PRACTICE.—In the course of an address delivered on January 17th, before the Metropolitan Counties Branch of the British Medical Association, on the subject of the Collective Investigation of Disease, Sir W. Gull observed: "It will be admitted that, had we leisure, proper means at our disposal, and, from previous training, a fitness for exact observation, we should find in general practice one of the most valuable fields of pathology, as here, and here only, we have before us the earliest signs of departure from health, and the only opportunities for tracing the course of a disease from its beginning to its end. Having passed many years in hospital and private practice, I have come to see that experience gained in the latter is necessary for the correction of that acquired in the former, especially as helping toward a truer pathology. It will, perhaps, and naturally, be objected that it is almost impossible to organize for any useful purpose the labors of men already overburdened by the cares and fatigue of practice; and that there is neither time nor fitness for delicate inquiries on their part. Admitting that this objection is valid, it may be urged in reply that it need not be insuperable. It can not be denied that when we see the meaning of the apparent trifles which in practice would otherwise oppress and worry us, our burden is thereby much lightened, and that nothing could encourage us more than to feel that even one daily observation recorded was adding to our general store of knowledge, and making the path

of practice more easy. There is no tonic to the mind greater than the sense of work done; and our journey is likely to be made shorter, as it certainly will be easier, if the way is illuminated. We, indeed, owe it to those members of our profession who are admittedly overwhelmed by the apparently senseless details of their work, to promote a movement like collective investigation, the object of which is to bring order into chaos, and to help them to stamp a scientific value upon facts hitherto only burdensome. If we compare the unflagging interest of any pursuit where the aim is high and clear with the tediousness and wearisomeness felt when working in the dark, we shall readily admit that we are actually lightening the burdens of practice by thus adding to them, and by giving some portion of them a sense and meaning. It is the spirit of a man which enables him to do his work lightly and cheerfully, and he will certainly be helped in this by a combination with fellow-workers on the same subject."—*British Medical Journal*.

THE USE OF THE MULLEIN PLANT IN THE TREATMENT OF PULMONARY CONSUMPTION.—F. J. B. Quinlan, M. D., M. R. I. A., F. K. Q. C. P., Physician to St. Vincent's Hospital, Dublin, observes that "from time immemorial the *Verbascum Thapsus*, or Great Mullein, has been a trusted popular remedy in Ireland for the treatment of phthisis." After relating seven cases where it proved of benefit, he concludes: "I have set down the above cases simply in the order in which they occurred, and with no view of supporting any preconceived idea. These cases, although too few to justify any general conclusion, appear to establish some useful facts. The mullein plant boiled in milk is liked by the patients; in watery infusion it is disagreeable, and the succus is still more so. The hot-milk decoction causes a comfortable (what our Gallic neighbors call *pectorale*) sensation, and when once patients take it they experience a physiological want, and, when the supply was once or twice interrupted, complained much in consequence. That it eases phthisical cough there can be no doubt; in fact, some of the patients scarcely took their cough mixtures at all—an unmixed boon to phthisical sufferers with delicate stomachs. Its power of checking phthisical looseness of the bowels was very marked, and experiment proved that this was not merely due to the well known astringent properties of boiled milk. It also gave great relief to the dyspnoea. For phthisical night-sweats it is utterly useless; but these can be completely checked by the hypodermic use of from one eightieth to one fiftieth of a grain of the atropia sulphate, the smaller dose, if it will answer, being preferable, as the larger causes dryness of the pharynx, and interferes with ocular accommodation. In advanced cases, it does not prevent loss of weight, nor am I aware of anything that will, except koumiss. Dr. Carrick, in his interesting work on the koumiss treatment of Southern Russia (page 213) says: 'I have seen a consumptive invalid gain largely in weight while the disease was making rapid progress in her lungs, and the evening temperature rarely fell below 101° Fahr. Until then I considered that an increase of weight in phthisis pulmonalis was a proof of the arrest of the malady.' If koumiss possesses this power, mullein clearly does not; but, unfortunately, as real koumiss can be made from the milk of the mare only, and as it does not bear traveling, the consumptive invalid must go at least to Samara or Southern Russia. In pretubercular and early cases of pulmonary consumption, mullein appears to have a distinct weight-increasing power; and I have observed this in several private cases also. Having no weighings of these latter, however, makes this statement merely an expression of opinion. In early cases, the mullein milk appears to act very much in the same manner as cod-liver oil; and, when we consider that it is at once cheap and palatable, it is certainly worth a trial. I will continue the research by careful weighings of early cases; and will further endeavor to ascertain whether the addition of mullein to the cultivating solution prevents the propagation of the phthisical bacillus."—*British Medical Journal*.

TREATMENT OF DYSENTERY.—Mr. F. Rawle, M. R. C. S., observes that, at the present time, when dysentery is very prevalent, especially among those who have returned from the Egyptian war, any suggestion that may mitigate the suffering of so fatal a malady will be hailed with gratitude. The plan he has used with most success is the following: First, having placed the patient between warm blankets, a pint and a half of warm water, at a temperature of 90° Fahr., is injected.

This is seldom retained longer than a few minutes, but is pronounced very grateful to the patient. When the water has soothed the mucous membrane of the colon and rectum, and brought away any *effete* matter, two ounces, by measure, of the following enema is administered with a gum-elastic bottle: $\mathcal{R}$ Quinine sulphate, ten grains; compound tincture of camphor, four drachms; decoctum amyli, to two ounces. Mix, and, when about milk-warm, inject, which is generally retained; but, if ejected, it may be repeated after an hour or two. This has been found of great service, and very grateful to the patient; the effect is like magic. If griping pains be felt over the region of the epigastrium, half-drachm doses of chlorodyne, in some aromatic water, mint, caraway, or aniseed, should be given. The diet, of course, should be of the most soothing kind: jellies, isinglass, linseed, toast, and barley-water *ad libitum*. Ipecacuanha appears of little service, and Mr. Rawle has discarded it from his treatment. Warm turpentine stupes, on warm flannels, over the hypogastrium prove very beneficial.—*British Medical Journal*.

HYDATIDIFORM DISEASE OF THE CHORION.—Mr. Edward Stephens, M. R. C. S., of Ilminster, writes to the "*British Medical Journal*" that "on September 7th he was sent for by a midwife to attend Mrs. C., who was flooding. On his arrival, the hæmorrhage had stopped. On making an examination, the uterine sheath was not sufficiently dilated to be able to ascertain its contents. On passing his hand over the abdomen, he remarked to the midwife how unusually circular it was. On the following afternoon he was again hastily summoned, and found the woman had lost much blood. On making an examination, he found that, by a little manœuvring, he could insert his hand into the uterus; and he vividly remembered how astonished the midwife and Mrs. C. looked when he informed them that it contained no child. In fact, Mrs. C. stoutly declared that she had felt the child many times, and that, being the mother of thirteen children, all living, she ought not to have been mistaken. After administering a full dose of ergot, some sharp uterine pains followed—soon expelling a mass, which, when collected, filled three ordinary-sized chamber-utensils. After this jelly-like mass had been expelled, she rapidly recovered, and made an uninterrupted recovery."

COMPOUND FRACTURE OF THE FEMUR, ERYSIPELAS, PYÆMIA; AMPUTATION OF THE THIGH; SUBSEQUENT EXARTICULATION AT THE HIP; COMPLETE RECOVERY.—Arthur E. Barker, F. R. C. S. Eng., Assistant Professor of Clinical Surgery, and Assistant Surgeon at the University Hospital, describes a case under this title, at great length. The patient was a riveter, aged twenty-nine, who fell from a roof and fractured his femur. The case illustrates, in the first place, what is, however, unfortunately rare in experience, namely, the possibility of recovery from pyæmia, even in a patient weakened by a most severe injury, prolonged suppuration, and an attack of erysipelas. Secondly, it illustrates the feasibility in some cases of amputating with the best results through the thigh for compound fracture, leaving a second compound fracture in the neighborhood of the hip joint to be treated otherwise later on, when the first amputation wound is healed. Thirdly, it shows that, in such a case, it is possible to exarticulate the whole of the remaining bone up to the hip joint, without re-amputation through the soft parts, but through a moderate opening in the outer side of the stump.—*British Medical Journal*.

A NEWSPAPER EPIDEMIC.—Last Monday's "*Tribune*" had a startling account of an alleged unusual prevalence of pneumonia in New York at the present time—almost amounting to an epidemic, it was suggested. We have seen no reason to believe that pneumonia is more rife now than it is liable to be at this time of the year. Diseases that show a maximum prevalence at a certain season, year after year, do not always reach their highest pitch at precisely the same time each year. Much depends on meteorological conditions, and something doubtless on circumstances that at present we are incapable of stating. This is true of pneumonia, as well as of other such diseases, and, granting the "*Tribune's*" statements, we see nothing in the facts to warrant its sensational manner of announcing them.

THE TEACHING OF PSYCHIATRY.—A committee of the National Association for the Protection of the Insane and the Prevention of Insan-

ity ask your attention to the need which medical students have of more instruction, didactic and clinical, in mental diseases. They say that, since the incipient stage of mental disease must always be passed under the observation of the general practitioner before the patient is finally committed to the expert as insane, it is extremely important that a knowledge of such diseases should be widely diffused throughout the profession. Usually the diagnosis of insanity is stated incorrectly or imperfectly in medical certificates; and a rational attempt to treat the patient at home is not made, because the physician shrinks from assuming a responsibility for which he has never been prepared. Medico-legal cases are often complicated and rendered obscure by the ignorance of the physicians who are called to testify in regard to them. Many cases of impending insanity are allowed to progress, when an adequate knowledge of the subject might have enabled the family physician to ward off the catastrophe. A training in psychiatry would, in the committee's opinion, fit the general practitioner for more successful treatment of mental symptoms in patients not actually insane. They believe that the time has come when in this country no course of medicine should be considered complete without attendance upon lectures and clinics on mental diseases; and that no student should be allowed to graduate without passing an examination in psychiatry. They therefore urge that such instruction be provided for in medical schools, by means of: 1. A chair of lectureship on psychiatry. 2. A clinic of psychiatry, held in an asylum for the insane. Both these forms of instruction, they add, have long been a part of the curriculum of the best European medical schools; and nearly a dozen medical schools in this country already advertise lectures on insanity as a part of their course.

THE AMERICAN JOURNAL OF OTOTOLOGY.—The publishers of the "*American Journal of Otology*" announce the suspension of the publication of that journal until further notice.

ARMY INTELLIGENCE.—The Vancouver "*Independent*," chronicling the transfer of Assistant Surgeon C. L. Heizmann from the Department of the Columbia to the Department of the South, says: Many warm friends in Vancouver will miss Dr. Heizmann very much when he takes his departure. — Surgeon Page and Mrs. Page, and Surgeon Cowdrey and Mrs. Cowdrey were among the guests present at the recent marriage of Lieutenant Garrard, Fourth Artillery, to Miss Lane. Many other officers were present, not a few with their wives, and the affair is described as having been very brilliant. — The army medical examining board ordered to assemble in this city on the 1st inst will probably continue in session about three months.

NAVAL INTELLIGENCE.—Medical Director T. M. Potter and daughter Passed Assistant Surgeon S. H. Griffith, and Passed Assistant Surgeon Robert Whiting were registered at the Ebbitt House, Washington, during the week ending February 22, 1883. — Passed Assistant Surgeon S. H. Dickson was one of the officers of the ill-fated *Ashuelot*. — The *Kearsarge*, which left Curacao for Savanilla, Cartagena, and Colon, February 8th, had Surgeon M. C. Drennan on board. — The "*Army and Navy Journal*" says: Passed Assistant Surgeon W. W. G. Willson is on trial for insubordination and willful neglect of duty. The specifications are, disrespect to his superior officer—the Surgeon of the *Alaska*—and refusal to give attention to a sick member of the crew. Medical Director A. L. Gihon and Medical Inspector E. S. Bogert are on the detail for the court. — Surgeon James A. Hawke has been ordered to the receiving-ship *Wabash*. — Passed Assistant Surgeon Howard E. Ames has been ordered to the receiving-ship *Colorado*. — Surgeon Thomas Hiland has been ordered to appear before a retiring board. — Surgeon John L. Neilson has been detached from the *Saratoga*, and placed on waiting orders. — Surgeon J. H. Clark has been detached from the receiving-ship *Wabash*, and placed on waiting orders. — Passed Assistant Surgeon Charles A. Siegfried has been detached from the receiving-ship *Colorado*, and ordered to the training-ship *Saratoga*. — Passed Assistant Surgeon D. M. Guiteras has been relieved from special duty at Washington, and ordered to the *Swatara*, relieving Passed Assistant Surgeon W. W. G. Willson. — Assistant Surgeon William Martin has been granted leave of absence for six months from March 1st.

Lectures and Addresses.

ABSTRACT OF

THE CARTWRIGHT LECTURES

ON THE RELATIONS OF MICRO-ORGANISMS TO DISEASE.

DELIVERED BEFORE THE ALUMNI ASSOCIATION OF THE COLLEGE OF PHYSICIANS AND SURGEONS, NEW YORK,

By WILLIAM T. BELFIELD, M. D.,
CHICAGO.

LECTURE II.

SEPSIS AND ANTISEPTIC SURGERY.

THE speaker opened his remarks with the statement that the infectious diseases depending upon wounds, and, therefore, falling within the province of the surgeon, merited somewhat extended discussion. Such diseases were known to the earliest of the medical writers, and we might assume that they antedated man himself by so much time as the existence of highly organized life preceded him. He then reviewed the history of experimental researches upon the lower animals and the clinical history in man regarding the introduction of putrid animal matter, certain ferments, and inorganic substances into the system, and the effects produced thereby. The experiments of Panum had led him to the conclusion that the symptoms arising from the introduction of putrid substances into the system, symptoms of septicæmia, must be due to a definite compound which he called sepsin. The earlier experiments, and deductions drawn therefrom, of Hallier, Billroth, Klebs, Rindfleisch, Recklinghausen, Samuel, Pasteur, and others, were considered, especially with reference to the possible etiology of the symptoms of septicæmia which followed the subcutaneous injection of putrid substances, of the animal ferments, fibrin, pepsin, trypsin, etc., of inorganic substances, of liquids known to contain bacteria, and of those which had been treated in a manner to destroy organic life. The presence of bacteria in the tissues of animals or of man dead of septicæmia, as the sequel of gunshot wounds, etc., had been established by Rindfleisch, Klebs, and others, and it was generally concluded that the septic infection following the experiments alluded to might be produced either by organized or by unorganized substances; that the presence of bacteria was an epiphenomenon—a consequence, not a cause. Billroth was of the opinion, from much careful observation and experimental research, that the presence of bacteria was a result, and not a cause, of certain changes in the secretions and tissues, and he ascribed this result to the action of what he called a zymoid substance. It was possible, he admitted, that the presence of bacteria might aid the multiplication of this zymoid substance. Since the publication of his work, in 1874, Billroth had materially modified some of his views.

There soon appeared from various sources, especially from Koch and Pasteur, investigations from which deductions were to be drawn more or less incompatible with these views. Pasteur found that the tissue of an animal septically

infected contained microscopical organisms, the inoculation of which into a second animal caused a reproduction of the original disease. If, however, the organisms referred to were destroyed, abscesses might develop as before, but general infection would not take place. He therefore reached the conclusion that the presence of bacteria alone was responsible for the septic infection. It was to be remarked, however, that both Pasteur's deductions and the methods employed offered many vulnerable points. The method of culture in tubes and flasks had before been criticised.

Markedly different was the reception given a monograph published in 1878 by a young German physician, then almost unknown, Robert Koch, who made certain improvements in modes of investigation which had become absolute necessities for reliable original research in this field. Having demonstrated the life of the bacillus anthracis, which French physicians had for sixteen years failed to discover with the methods of their leader in this field of investigation, Pasteur, Koch turned his attention to the study of the etiology of certain infectious diseases. He injected from five to ten drops of putrid blood into a mouse, and death resulted within a few hours. No bacteria were discovered after death, and the blood and tissues of the animal were incapable of communicating the disease. He found, however, that the injection of a smaller quantity, one half to one drop, of the same putrid blood was followed by entirely different effects. In some cases the mouse was unaffected; in others transient fever ensued; in perhaps one third of the cases about twenty-four hours later there occurred progressive weakness, drowsiness, and, in from forty to sixty hours, death. The animal revealed no other pathological lesion than a local œdema at the seat of the inoculation, and enlargement of the spleen. Injection of the products of this local œdema into another mouse was followed by a like clinical history; and so on indefinitely. Here, then, was a result markedly different from that obtained after the injection of a larger quantity of the putrid fluid; a stage of incubation, local reaction, and a certain and uniform infectiousness. The blood evidently contained something which was not present in the blood of the first mouse experimented upon—something requiring time for the manifestation of its influence, and which finally distributed itself throughout the entire system. Such a mode of action implied reproduction, and reproduction was characteristic of organized matter. It was to be inferred, *a priori*, that the blood contained organisms, and Koch found that the blood, the serum, the white blood-corpuscles, etc., swarmed with bacteria. Since the blood of the infected mouse differed from that of the intoxicated mouse only in the presence of these bacteria, Koch ascribed the infectiousness to these organisms. Yet, although this association existed between the presence of the bacterium and the specific infection there still remained the objection that possibly the essential agent of infection was an unorganized substance contained in the material used for inoculation, and that bacteria were the result and not the cause; but it had subsequently been satisfactorily established by Koch, Gaffky, and Löffler that the bacteria alone would produce the result. Dr. Belfield quoted the results

of the investigations of several experimenters, going to show that the symptoms of septicæmia might be produced by other substances than those of putrefaction, such as the physiological ferments of pepsin and trypsin, hæmoglobin, etc., but whether the effect produced was due to the presence of bacteria or not, was immaterial to our present purpose. It would appear from the experiments of Schmidt, though the fact was not demonstrated in all cases, that the clinical and the anatomical features common to the various forms of septicæmia might be attributed to the rapid liberation of fibrin ferment in the blood, and that any agent, organized or unorganized, capable of producing such liberation, might induce the disease. This enabled us to understand many things otherwise perplexing.

The opinion that aseptic wound fever differed from sepsis in degree rather than in kind met with a serious objection in the fact that the former occurred within a few hours after the infliction of the wound, before decomposition and consequent sepsis could have occurred. The speaker mentioned facts connected with subcutaneous injuries which went to indicate that aseptic wound fever was caused by absorption of extravasated blood, especially as it had already been shown experimentally that blood might produce the same phenomena. Septicæmia was a collective name for processes more or less similar but etiologically distinct, at least in certain of the lower animals. Any one of several unorganized substances, any one of several bacteria, in the mouse certainly, might induce the characteristic symptoms. Clinical distinction was rarely possible.

The discussion of the subject of bacteria in connection with pyæmia began practically with relation to suppuration. Their presence in unopened abscesses had been demonstrated conclusively by Rindfleisch, Waldeyer, Ogston, Cheyne, and others. While the mere fact of association did not, of course, prove a causative relation, no other impartial and satisfactory hypothesis could be offered in the present state of our knowledge than that the micrococci caused this process; it was impossible to evade the conclusion that suppuration could be and was induced by micrococci. That it was produced by a particular variety of this organism seemed probable; that it was not induced by all species was evident, since micrococci were in various morbid processes in which suppuration did not occur.

Although our present knowledge of the etiology of septic infection was thus incomplete, our ability to prevent such infection was certainly more satisfactory. Cases of septic infection might be divided into two classes: first, those in which the possible source of infection was apparent, and, secondly, those in which such a source was not discoverable. The treatment of the former class, comprising wounds, etc., was based upon the assumption that bacteria entered into the morbid process. Thorough disinfection of the sponges, the hands, the knives and other instruments, etc., was a necessary measure against sepsis, some one of which details, however, was often overlooked by the surgeon. He had once seen a gentleman perform an operation which in itself was not dangerous, and it was maintained that Listerism had been observed, the instruments having been placed in a carbolic solution, the spray used, etc., but he neglected to

wash off the skin at the seat of the operation, and the woman died of purulent peritonitis.

Three factors were necessary to septic infection, viz.: first, the presence of animal tissue deprived of vitality, and hence capable of undergoing putrefaction; second, the presence of organisms capable of inducing infection; third, the presence of conditions permitting the vital activity of these organisms. The absence of any one of these conditions rendered putrid infection impossible, evidence in illustration of which could be obtained from outside sources, as in certain cases of extra-uterine pregnancy, in which air could not come in contact with the dead fœtus, and in the experiments of Hiller upon himself in the introduction of bacteria into the circulation, etc. Practically, the surgeon had three methods for the prevention of sepsis from a wound; namely, exclusion of putrid material, or cleanliness, the exclusion of bacteria, and the application to the wound of substances in which bacteria were inert. The employment of these means constituted aseptic or antiseptic surgery.

There was a tendency on the part of surgeons to regard Listerism and antiseptic surgery as one and the same. It would be manifest, however, that antiseptic surgery was far more comprehensive than Listerism. Listerism meant, generally, but one of three possible ways of preventing sepsis: that was the exclusion of ferments. That this was not the only possible means of success was illustrated in the brilliant series of operations reported by Lawson Tait and Savory, who had observed the same method. But there still remained a considerable number of cases, notably wounds of the mucous membranes, in which the anatomical arrangements prevented the execution of either of these aseptic methods; bacteria could not be excluded, nor could perfect cleanliness of the wound be secured. In such cases asepsis could be theoretically obtained, however, simply by the presence of some substance in the wound which rendered vital activity of the bacteria impossible. A great variety of such agents had been employed, such as solutions of carbolic acid, corrosive sublimate, etc., but for these particular cases all such preparations, being volatile or soluble, were practically useless, and it was reluctantly admitted that operation wounds involving the mucous membranes could not generally be rendered aseptic with certainty. Between 1860 and 1880 Billroth performed the operation of extirpation of the tongue one hundred and nineteen times, and, notwithstanding the most careful attention, including the use of antiseptic solutions, twenty-six of the patients died—nearly all from septic infection. With the introduction of iodoform into surgery, a non-volatile substance, in the presence of which bacteria did not multiply, a long stride was taken in advance. Under the use of iodoform, wounds of the mucous membranes were as perfectly protected against sepsis as were wounds situated upon the external surface to which the Lister dressing had been applied. From 1880 to 1881 Billroth extirpated the tongue eighteen times, packing the wound with iodoform gauze, allowed to remain undisturbed from five to seven days; not a single septic infection occurred, and recovery took place in every instance. An operation which, though comparatively trivial, had, even in Billroth's skillful hands, been followed by a greater mortality

than that of ovariectomy, was now deprived of its septic terrors. Here was aseptic surgery *par excellence*, though the spray was absent; here was prevention of septic infection by measures which did not exclude bacteria from the wound, but simply restrained their development.

The method of Lister, conceived and devised from an hypothesis before the assumptions of that hypothesis had been verified, contained some errors of conception and execution. The spray, the sign manual of Listerism in the professional mind, seemed less essential since it had been learned that bacteria were less numerous in the atmosphere than had been formerly supposed. It was doubtful even whether the carbolic-acid spray had ever killed a single bacterium, for many of these organisms, as had been shown by the experiments of Koch, had a power of vitality in the presence of this fluid which was in some degree astonishing. It was probable, however, that, except in those cases of abdominal section where the spray caused positive injury, benefit might be derived from its use.

As applications to the wound, many substitutes had been proposed for the objectionable carbolic acid, some preferring corrosive sublimate, some iodoform, etc. In order to secure cleanliness, surgeons now generally appreciated the importance of ligating or twisting every vessel, however small, which could bleed. For the purpose of absorbing putrefying materials, Esmarch used turf dressing with great satisfaction; others used sand, with solution of corrosive sublimate poured into the wound. Perhaps one of the most important antiseptic measures was the insertion of deep sutures for the closure of the lips of deep wounds.

He repeated that antiseptic surgery was not, then, entirely comprised in the spray and carbolic acid; it was not simply a question as to the relative anti-bacterial properties of this and that so-called antiseptic agent. It was to prevent the entrance into and the formation within the wound of all substances, organized or unorganized, which went to interfere with nutrition. It implied the removal of all putrefying material, of blood, etc.; second, the exclusion of all ferments, bacterial or other; and, since neither one of these objects could be accomplished fully by the most perfect Lister or other dressing, third, the employment of substances in the presence of which bacteria were inert. The surgeon should avail himself of every possible means, without regard to special methods of this or that man, in order best to realize this object. Dr. Belfield remarked that it had been his fortune to see these conditions most nearly realized at Billroth's clinic, and with the best of results. He then gave a detailed description of the manner in which Professor Billroth was in the habit of dressing wounds at the present time.

He then considered three morbid conditions—crysipelas, diphtheria, and scarlatina—which, although exhibiting definite and distinctive clinical characteristics, were etiologically closely allied to pyæmia and septicæmia. It was doubtful whether diphtheria had any etiological or anatomical right to distinction from pyæmia and septicæmia, however definite the clinical distinction might be.

Original Communications.

ON THE CAUSATION OF MYOPIA.

By DAVID HUNT, M.D.,

BOSTON.

THE current hypothesis as to the causation of myopia assumes that it is in some way produced by near work, and that in some manner this result of near work is directly cumulated by heredity. There are differences of opinion as to the relative importance of near work and hereditary influences as causative agents, but there is a general agreement that the cause of myopia is included under these two headings.

We believe that this hypothesis is unsatisfactory. No case has ever been related where near work has apparently caused near sight—not even Professor Arlt's account of his own case—which can not be paralleled by reports of like or more marked cases in which it can be demonstrated that there has not been even an average amount of near work. On the other hand, as every practicing oculist knows, myopia is so frequently seen to arise in families where there is no trace of myopic ancestors, and the children of myopes are so frequently observed free from the disorder, that it is impossible to bring it under the laws which govern the transmission of acquired characteristics. Our space forbids going into details; but we think that this is unnecessary in this connection, since the insufficiency of our present hypothesis is demonstrated by our practice of helping out our notorious failure to demonstrate any cause included in near work, sufficient to affect the shape of the eye, by appealing to "hereditary predisposition," and, on the other hand, by supporting our claims as to the hereditary character of the affection, when exact observation contradicts them, by the same resource. In confirmation of these statements, consider, first, the recent statement of Pflüger: "Which, of all the injurious influences contained in continuous employment upon near objects is principally accountable for the development of myopia is now an unsolved problem"; and, second, the fact that Dr. Loring found only six per cent. of myopes, old enough to give intelligent answers to his questions, who had either parent myopic.

If there are doubts as to the truth of current theories, caused to a great extent by neglecting the natural history of myopia, and thus confusing concurrent phenomena with causative agencies, we can not remove those doubts, nor aid our search for the truth involved, by patching up a deficient knowledge of heredity with an unproved statement of the causative influence of near work. Perhaps no one name or authority exerts more influence upon the world in general in support of the prevailing hypothesis than that of Darwin. It is well to remember that he wrote upon this subject without giving the results of his own observations; with that candor which distinguished him, he applied to certain leading lights in the ophthalmological world, not for facts, but for ready-made inductions. These, agreeing with obvious appearances, he accepted, and he went rather beyond his authorities in stating essentially that near vision produces

near sight, distant vision long sight, and that heredity directly cumulates these results. If Darwin had studied the subject himself, we have every reason to believe that, however important the pathological complications of myopia may render it to the physician, he would have been struck by the fact that in a general way errors of refraction increase together. Thus, among such short-sighted people as the Germans and the Italians, Mannhardt thought that one peculiarity might be found in the greater proportion of long sight in one race than in the other; no doubt either race demands and needs more and stronger convex glasses than do the inhabitants of the southern shores of the Mediterranean. Statistics of dealers in spectacle-lenses would be interesting upon this point.

Again, Darwin would not have omitted to consider that very prevalent, if less known, anomaly of refraction, astigmatism. He could not but regard this disease as an anomalous result of the exercise of a function like that of vision, and he would have found mixed forms of astigmatism—forms combining long and short-sighted meridians in the same eye, not to be explained as results of the function of the eye, and not resulting from a mixture of long and short sight among parents or ancestors.

Again, he would have found a difference in the refraction of the two eyes of very common occurrence,* and this difference, in spite of the theories of Schneller and others, he would have found it difficult to have explained in accordance with the prevailing hypothesis.

Again, he would have studied the question of heredity in those countries where myopia is now originating, and if he had found the ratio of myopic ancestors a smaller one than in older countries, where myopia has long been prevalent, he would probably have been very cautious about accepting an opinion as to the hereditary nature of the affection. On the other hand, if he found from the natural history of myopia that it developed in the field and in the school during the early years of life, he would have carefully refrained from ascribing to school-work as a cause an affection that merely occurs during school years. As far as the occurrence of myopia among adults is concerned, he might have felt the doubts which trouble many practitioners, who are aware how very little people know of their eyes, and how easily oculists even are deceived as to the slighter degrees of ametropia.

Again, the reports of observers like Macnamara would have shown him that among people making but little use of near vision, employed almost altogether in pursuits exercising distant vision, the rule is not hypermetropia, but emmetropia. Finally, considering the facts which practice daily affords in connection with those just mentioned, we think that this great investigator would have declared that the characteristic of the eye of civilized man is not, as appears upon superficial considerations, myopia, but variability (my-

opia, hypermetropia, and astigmatism). The characteristic of the eye of savage races, on the other hand, is fixity of type.

Before stating our own hypothesis of the causation of myopia, we beg the attention of the reader to a few general statements of anatomical relations in the young embryo. If we make a horizontal section of the head of a pig embryo one fourth of an inch long (Fig. 1), we shall find that the eye is composed essentially of a double walled cup. In its

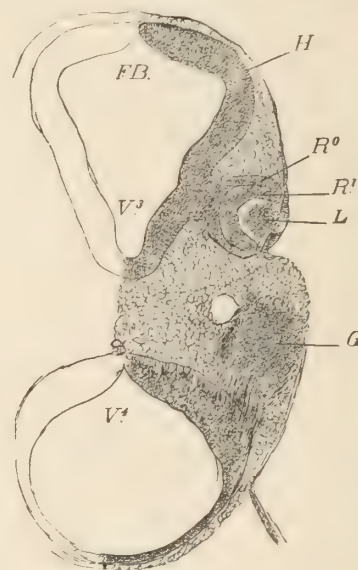


FIG. 1.

cavity lies the lens (L), which at this period consists of a mass of epithelial cells, still connected with the epithelium of the surface, of which at a little earlier stage it formed a part. At the earlier stage referred to, the embryonic eye was globe-shaped, and the appearances now are as if the growth inward of the involution of epithelium forming the lens had pushed the anterior section of the former globe, or primary optic vesicle, in before it, as we may fold or push a section of a common rubber ball into a cavity, of which the remaining section forms the outer wall. After this involution of the lens, the double-walled cavity is called the secondary optic vesicle. Of the two layers, the inner (R¹) forms the retina proper, the outer (R⁰) and thinner layer, which was formerly of the same thickness as the inner, undergoes retrogressive metamorphosis, until it forms a simple layer of pigmented epithelium. This was formerly considered as a part of the choroid, but embryology has taught us that it really is a part of the retina. This outer layer of the retina is continuous with the layer of epithelium forming the walls of the hollow optic nerve, and is continuous by means of this structure with the epithelium forming the walls of the embryonic third ventricle (V³), the great cavity in the fore brain (FB) from the anterior portion of which the hemispheres (H) are developed. The cavity lettered V⁴ is the fourth ventricle; fibers are seen running from its walls to the great Gasserian ganglion (G), which for some time during embryonic life is as large as the eye. All the embryonic connective tissue inclosing the portions of brain and the eye impresses one at this time as playing a decidedly passive part; while all the tissues of epiblastic

* Dr. Schneller (Graefe's "Archiv," Bd. xvi, Abth. 1) found, in 1,150 cases of myopia, the eyes alike in 455 cases; a greater degree of myopia on the right side in 416 cases; greater degree on left side, 279 cases. Dr. Schleich ("Mittheilungen aus der ophth. Klinik in Tübingen," drittes Heft.), in 578 cases of myopia, eyes alike in 243 cases; eyes unlike, 268 cases; cataracts in 11 cases, one-sided blindness in 56 cases.

or epithelial origin are actively shaping the brain, the organs of sense, and, in some way not yet fully made out, stimulating the production of such growths as that constituting the Gasserian ganglion. As far as I have observed, this ganglion originates independently in the connective tissue (head plates), but very soon fibrils can be seen connecting it with the brain, as shown in the cuts (Figs. 1 and 2).

In Fig. 2 is represented a section of the eye and surrounding tissues, from an embryo pig, seven sixteenths of

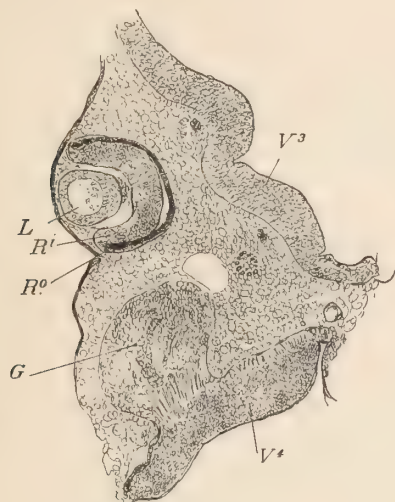


FIG. 2.

an inch long. The lens (L) is fully separated from the surface epithelium. The outer layer of the retina is now a simple layer of pigmented epithelium. In the anterior portion of this layer the cells are nearly cylindrical, and their outer portions are free from pigment. Behind the lens, between it and the inner layer of the retina, a collection of cells indicates the commencement of the formation of the hyaloid artery and connecting blood-vessels. This genesis of blood-vessels occurs in the embryonic vitreous. This structure is, I think, nothing more than the result of the retrogressive metamorphosis of embryonic connective tissue turned in to the optic vesicle behind the lens, and connecting with the same connective tissue at the anterior termination of the retina and through an opening on the under part of the eye vesicle. The opening referred to is caused by the folding in of the primary eye vesicle. We have described this process as in appearance the same as if the lens had pushed in before it the inner retinal layer; a more exact notion may be conveyed by supposing the primary optic vesicle to be turned in and pulled down over the lens, as a hood is pulled down on to the head. The neck opening of a hood would represent the fissure in the secondary optic vesicle. In early stages of development this fissure extends backward into hollow optic nerve, which is included with the eye vesicle in the process of folding down over the lens. Imperfect closure of the cleft causes coloboma of the choroid. It is probable that the point of entrance of the ophthalmic artery into the optic nerve marks the point at which this embryological fissure terminated posteriorly, since it is probable that the artery is a product

of the mesoblastic tissue included between the folds of optic vesicle and optic nerve, as they extended downward and forward to inclose the lens. Note that up to this time the structures which we have called the walls of the optic vesicle, optic nerve, and fore brain, are directly continuous, and exactly similar structures.

The Gasserian ganglion (G) is more clearly defined; the nerve fibers connecting it with the walls of the fourth ventricle (V⁴) more evident; there is a change in the relative position of the eye and the ganglion; the eye seems to have approached, the ganglion to have receded from the surface.

No fact in the earlier history of the eye vesicle is more striking than that of its forming essentially a *portion* of the brain; its early history is much like that of the hemispheres, and it develops from the same structure but a little distance behind their point of origin. If we glance at their further development, we shall see that as the skull, the membranes, and the blood-vessels of the brain form in the layer of connective or mesoblastic tissue immediately surrounding it, so the sclera, choroid, and blood-vessels of the eye form in the same layer, enveloping the eye. It seems natural to suppose that as the brain tissue during its growth impresses a type upon the tissue containing it, which is afterward made permanent in the bony skull, so the brain tissue composing the eye impresses its type upon the tissue which is to form the sclera, and to conclude that this phenomenon of variability of the human eye, instead of being a direct variation produced by function and direct hereditary transmission, is a correlated variation, and that the brain is the organ with which the eye is correlated.

Fig. 3 is a section of both sides of the head of an embryo seven sixteenths of an inch long (Fig. 2 was traced

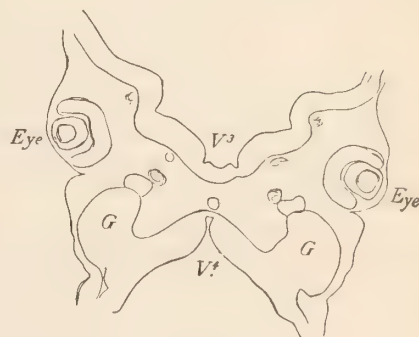


FIG. 3.

with prism attached to No. 2 eye-piece, Fig. 3 with prism and No. 1 eye-piece; 1½-inch objective was used in both cases). This outline figure is intended to furnish a comparative view of the connective and nerve tissues in this principal portion of the head at this stage of development; it can be readily seen to what extent a very slight increase of the brain (V³, V⁴), eye, and Gasserian ganglion (G) may influence the connective tissue surrounding them, and so influence the shape of the skull, brain, membranes, and blood-vessels, sclerotic, choroid, and other structures of the orbit, all of which are soon to form from this very connective tissue.

Fig. 4 furnishes a glimpse of the processes which result in the demarkation of the sclera. The fibers (MN) seen on

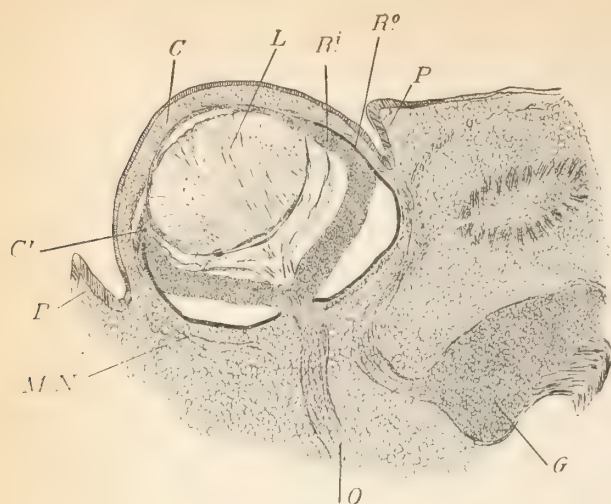


FIG. 4.

each side of the eye are nerve and muscle fibers, and the connective tissue included between them and the eye is destined to produce the choroid, sclera, and a certain residuum, so to speak, of adipose connective tissue. At this stage it is the rule to find, upon sections from embryos hardened in Müller's fluid and alcohol, the layer of epithelium bounding the anterior surface of the lens separated from it, and adhering to the tissue which is to form the cornea (C); it is also the rule to find the two retinal layers adherent near their anterior termination—that is, at the site of formation of the ciliary body (C'). In the pig embryo at this stage (one and one sixteenth of an inch long) the lids have commenced forming (P). The well-developed curvature of the anterior portion of the eye, supported by the lens, contrasts strongly with the undeveloped, baggy posterior portion of the globe. The Gasserian ganglion (G), relatively smaller than in earlier stages of development, is in more intimate connection with the eye, and a bundle of nerve fibers nearly as large as the optic nerve (O) is seen proceeding toward the eye to mingle with the nascent muscular fibers; there is as yet no clearly defined sclera.

Every observer must have been struck with the difference between the growth and shape of the head of the human embryo from the fourth to the twelfth week, and the growth and shape of the head of any other mammalian embryo. Regarding this most obvious difference, I can not but think that Darwin's statement, that "variations do not commonly supervene at a very early period of embryonic growth," is a statement founded upon present knowledge, based upon means of observations too coarse to enable us to discover all the changes bound up in the tiny morsel which constitutes the young embryo, rather than a statement of the facts of the case. In this plain, well-marked difference between the head of the human and pig embryo, at corresponding stages of development, is it not probable that we have an early and material expression of the great difference between a free agent, working out his own progress, and an animal with dormant faculties, ruled by powers almost wholly extrinsic to his own organism?

But this difference existed in the blastodermic membranes, and, of course, potentially in the ova. Its result in man, particularly in civilized man, where all the functions of the nerve tissue, derived from the epiblast, have been greatly increased, must have been a certain disturbance in the relation of the embryonic layers. The equilibrium of the blastodermic membranes which we may suppose to have existed for ages is destroyed in the case of man by the conditions of his existence, and more disturbed as he progresses from the ancient caste civilization toward that type of western civilization which, while it has liberated the individual, has also loaded him with an ever-increasing burden of thought, care, and endeavor. The greater size of the cerebral hemispheres causing the greater frontal development of civilized man, the greater complexity of the cerebral convolutions, the greater difference between the weight of the hemispheres must represent a greater development of epiblastic tissue. It is difficult to suppose that such an increase, at least in the head, where the epiblastic and mesoblastic tissues are in such extensive and intimate relations (see Fig. 3), could have occurred without producing direct results, interfering in many ways with the usual course of transmission of hereditary effects, as we see these in the domesticated animals, where no such disturbance of the equilibrium of the blastodermic layers has occurred. Would not the action of this cause explain, to a certain extent at least, the fact that man alone, of all the animals which have undergone a great change from predominating distant to predominating near vision, has suffered such deleterious changes in the structure of the eye? In applying this hypothesis it is not necessary to demonstrate the co-existence of the largest eye and largest hemispheres; many conditions may influence the relation in a given individual. The fact that the hemispheres of the brain are of unequal size—and one observer at least has stated that the right hemisphere is the larger, and that this variation has resulted from causes connected with man's progress in civilization—is at least suggestive. How far the greater development of the convolutions in civilized man may be attended by an increase of cell growth in the young embryo, capable of affecting that part of the brain forming the eye of the young embryo, it is apparently impossible to determine. The supposition that it may have some influence is in accordance with physiological laws. Before leaving this subject, it may be observed that our hypothesis offers a rather more cheerful view of the future of the organ of vision than that now in vogue. An ultimate destruction of the eye of man must follow if this affection is caused by near vision, and directly inherited. Comparing the condition of the eye among the Germans with the condition of the same organ among the people of our own country, gives a rough measure of the increase which the Germans must expect, according to current theories, in the next few centuries, if these doctrines are true. If, as we suppose, this variation of the structure of the eye is correlated, it is obvious that the deformity will not exceed, to any great extent, the limitations which its dependence upon the changes in brain structure fixes. The bearing of this hypothesis upon the hygiene of the eye may also lead us to be a little more cautious in insisting too fiercely upon edu-

cational reforms from the ophthalmological stand-point. No doubt bad lighting, bad type, bad blackboards, etc., may aggravate lesions liable to affect the myopic eye, but it is more than doubtful if all these bad influences ever *caused* a case of myopia.

Staphyloma posticum is such a common attendant of myopia that any hypothesis pretending to account for the occurrence of the latter should throw some light upon the causation of the former. After reviewing the multifarious explanations of the causation of this lesion, including the latest, that of Dr. Paulsen, in the twenty-eighth volume of Graefe's "Archiv," I must confess that I have not yet received much light. Dr. Paulsen, for instance, supposes that the resistance which the sheath of the optic nerve offers to the movements of the globe causes this bulging of the sclera. I must confess that I can see no reason why the sheath of the nerve should not have given way in this struggle, rather than the sclera; but, if it is in accordance with physiology for such a result to follow such action, what blessed exception to physiological law preserves the ligaments of the great joints? What would be thought of an engineer who, attempting the solution of a problem embracing the action of all known forces, should confine his attention to purely mechanical powers, neglecting the consideration of all the great forces of Nature, as, for instance, electricity, light, and heat? Yet ophthalmological literature, particularly upon this subject of the causation of staphyloma, is full of mechanical treatises, comparable only to the lucubrations of the mathematical physiologists of the eighteenth century. Such theorizing is more dangerous as it is more ingenious.

Supposing the causes which have increased the parts of the fore brain, which we have hitherto considered, have also affected the Gasserian ganglion, we should also expect an enlargement of this structure. The history of this ganglion is so peculiar that an embryological increase of considerable importance might leave but the slightest traces in the developed individual. This ganglion has a relatively short period of increase in size, and this period is completed before the sclera is formed. As the different nerves and ganglia form, the embryonic Gasserian is broken up among them, and these fragments are soon incased in the cartilaginous skull, or shut into cavities, as the ciliary ganglion is inclosed in the orbit, where the conditions are such as prevent their future growth beyond the narrowest limits. According to the laws governing the increase of other ganglia, it is rational to suppose that the Gasserian is larger in the civilized man than in savages and domestic animals. Provided the increase takes place, it must, as Figs. 1, 2, and 3 make evident, encroach upon that portion of the connective tissue destined to form the choroid and sclera, and thus weaken these tissues in the part where the bulging or staphyloma occurs. In this process the degenerated epithelium of the outer retinal layer, united at this point to the developing choroid, might, and probably would, suffer changes affecting this membrane, while it is easy to see how the retina proper, for a long while an entirely independent and developing structure, might extend over that portion of the staphyloma characterized by the atrophy of the choroid and the weakness of the sclerotic.

Some additional confirmation of our hypothesis seems to me to be afforded by a study of the internal recti of the myopic and hypermetropic eye; these muscles in the former are long and weak, in the latter short and thick. It is commonly stated that the necessity of converging for the purpose of accommodation has caused this appearance in the muscles of long-sighted eyes. It is well known that myopes do not accommodate to any extent, and thus the difference is explained. Now, I do not see why an almost constant convergence, in the case of the myope, upon a point of vision lying near enough to bring this function of the internal recti into constant employment, should not cause as much hypertrophy of muscular tissue as convergence caused by an intent to aid the associated ciliary muscle in its action. On the supposition that an enlarged optic vesicle and enlarged Gasserian ganglion leave less mesoblastic tissue to be inclosed in the cartilaginous orbit, and that a consequent weakness should effect all the descendants of this mesoblastic tissue, and so give a type even to the appendages of the myopic eye, the causes of this weakness of the internal recti in myopic individuals are, it seems to me, more evident.

Whatever the truth or error involved in our theories may be, we beg indulgence for an attempt toward a scientific study of a certain aspect of the great question of heredity, which has received so much attention from so practical a surgeon as Sir James Paget. Who, that has practiced medicine and read his essays, has not felt the influence of the ignorance that blinds us in our attempt to solve some of the commonest problems connected with this subject. Embryology is the field upon which we must engage, to make the study of heredity a practical one; but embryology offers a more direct reward to the physician—it can furnish him with much aid in bringing scattered and disjointed facts and details of anatomy and physiology into a close and more logical union.

CASES ILLUSTRATING THE BENEFITS TO BE DERIVED FROM DIVISION OF STRICTURE OF THE RECTUM.

By CHARLES B. KELSEY, M. D.,
SURGEON TO ST. PAUL'S INFIRMARY FOR DISEASES OF THE RECTUM.

CASE I.—Mary P., aged thirty-five, widow, two children. The patient was sent to me for operation by Dr. Abbe, of New York. She had been under his treatment for various syphilitic manifestations for several years, and for at least five years, to his knowledge, had suffered from stricture of the rectum, which had been treated in various ways. At the time of the operation she was suffering from a constant discharge of blood and mucus from the anus, and never had an evacuation from the bowels without previously taking medicine, which she did twice a week regularly. Her general condition was fair, and there was not much pain when she used the laxatives and kept the bowels open. The ostium vaginae was much deformed by condylomatous growths, which had caused a good deal of hypertrophy of the labia. The urethra was ulcerated and partly destroyed, so that the little finger easily entered the bladder. The stricture began

about three quarters of an inch from the anus, extended higher than the index finger could reach through the vagina, and was so small that the finger could not be passed through it.

The whole mass of cicatricial tissue was divided in the median line posteriorly, the incision reaching several inches up the bowel and well above the disease, and including all of the perinæum between the anus and the tip of the coccyx, which was exposed in the wound. The hæmorrhage was free, and was controlled by packing the rectum with lint.

The patient did well in spite of adverse circumstances. The bowels moved for the first time on the seventh day after the operation. At the end of two weeks she was having comfortable, painless, well-formed passages without medicine, and with sufficient control of the sphincter for cleanliness. Four weeks after the operation, the patient was able to attend to her usual work, and expressed herself as perfectly satisfied with her condition, which was better in every way than for years before.

CASE II.—E. A. B. Patient operated upon in consultation with Dr. Rand, of Newark, N. J. The patient, a man, aged about thirty-eight years, had a distinct syphilitic history, and had suffered from stricture of the rectum for ten years, and from fistula for two years. For some months past he had noticed also a decided failure in sexual power, which he attributed to the rectal trouble. The fistula had once been cut without any relief, and the stricture had recently become so tight that he was afraid of its complete closure. To avoid this, he was in the habit of taking a very hard bougie, resting it upon the floor, and then, by sitting down upon the sharp end of it, forcing it into the bowel by the weight of his body. There was great trouble in securing evacuations from the bowels, and a constant muco-purulent discharge, with occasional escape of fæces involuntarily.

On examination, an exceedingly tight and firm stricture, which would allow of the passage of nothing larger than a lead-pencil, was found just within the external sphincter. The fistula was in the median line posteriorly, and was a trivial affair, having its internal opening just below the stricture, and being subcutaneous for its entire course. This was first divided, and then the stricture, which proved, after it had been cut sufficiently to admit the finger, to be nearly annular in form. The bowel was comparatively healthy above.

At the time of writing, just sixty days have elapsed since the operation, and the patient expresses himself as perfectly satisfied with the result. The wound is not quite healed, and there is, consequently, a slight discharge from the granulating surface. The passages are easy, painless, and natural, and there have been but two occasions when the fæces have escaped involuntarily, at both of which he was suffering from diarrhœa unconnected with the local trouble. He also has experienced marked benefit sexually.

There are many points which might be discussed with interest regarding these cases, and especially the one of ultimate result as regards recontraction after a series of years; but I am not as yet prepared to enter into them as I should like to do. I received a letter not long since from a lady upon whom I operated two years ago, which proved her to

be still very comfortable, and almost entirely free from annoyance; and I have other cases in which a longer interval has elapsed without recontraction to any marked extent. But my object in reporting these cases is to call attention once more to the marked and immediate relief which the operation affords, so that it may fairly be judged in comparison with any other method of treatment known to surgery.

"THE MADISON," 25 MADISON AVENUE.

A CASE OF MONSTROSITY.

By S. F. TAYLOR, M. D.,
LEAVENWORTH, KANSAS.

THE subject of the accompanying photographs was met with in the practice of Dr. H. B. Callahan, of this city, January 19, 1882.

The mother, aged twenty-six, German, was a multipara, healthy, and weighed one hundred and forty pounds. Ceased nursing her youngest child in August, 1881. In April or May, 1881, she aborted when supposed to be about seven weeks advanced.

Quickening, in the last pregnancy, was felt about November 20, 1881. Miscarriage threatened December 12, 1881, and subsequently; she had pain and flooding at intervals. January 18, 1882, she complained all day of severe pains, and next evening labor became fully established, with



FIG. 1.

the head in the first position. Delivery was easily and rapidly accomplished, the secundines following in due time; the placenta was healthy, the cord small, and pulsations strong. There was nothing peculiar as to the amniotic fluid.

The mother "did well," making a rapid and complete recovery.

The child survived forty minutes; weighed two pounds; and its total length was eleven and a half inches.

The head, thorax, and left upper extremity presented nothing abnormal. The right wrist was ankylosed in a semi-flexed position, and the thumb of that hand was represented by a supernumerary finger.

There was no osseous formation whatever to the pelvis.

The lower extremity was five inches and a half in length, and joined the trunk a little to the left of the mesial line. The entire member was flattened transversely, and reversed in its antero-posterior relations. The knee joint was slightly flexed and ankylosed, its flexure looking forward. The tibia and fibula were larger and heavier than usual, the former presenting the flattening in a marked degree. There was no apparent articulation at the ankle; the integument below this point presented the same appearance anteriorly



FIG. 2.

as did the plantar surface of the normal foot. The toes were represented by three rudimentary protuberances destitute of nails.

One of the most interesting features of the case was the complete absence of external formation whereby sex might be determined. The anus was imperforate.

The spine terminated in a slightly elevated protuberance about one inch and a half above the upper extremity of the femur.

I neglected to state that there was no specific history to either parent, no consanguinity.

Book Notices.

The Diseases of the Liver, with and without Jaundice; with the Special Application of Physiological Chemistry to their Diagnosis and Treatment. By GEORGE HARLEY, M. D., F. R. S., F. R. C. P., Physician to University College Hospital, London, etc. Illustrated by colored plates and wood engravings. Philadelphia: P. Blakiston, Son & Co., 1883. Pp. 751. [Price, cloth, \$5; leather, \$6.]

THIS is a most attractive volume as regards binding and typography, and the very name of the author carries with it the promise of a scholarly, scientific work. From his special training we should expect him to give prominence to physiological chemistry, did he not emphatically state in the preface that such was his aim. "This treatise," he says, "has not been penned either for the use of the tyro or the *dilettante* in medicine, but for that of my qualified brethren." Further on he adds the rather discouraging opinion that the term "scientific physician" should be limited to those men only who, in addition to their regular medical education, have passed two or three years in the study of physiological chemistry.

Chapter II treats of the "Chemistry, Physics, and Physiology of the Liver," special attention being paid to the normal size and situation of the organ, with the possible errors arising during a physical examination. The functions of the liver are briefly described as four—viz.: 1, Sugar-manufacturing; 2, Fat-modifying; 3, Calorifying, and 4, Bile-forming.

In Chapter III, on the "Etiology of Jaundice," Dr. Harley contends earnestly for the theory of suppressed secretion, as opposed to Frerichs, Murchison, and Legg. His argument, however, is based upon a single case in which, though there was marked jaundice, the autopsy showed that the gall-bladder and ducts were filled with colorless mucus. It would seem as if more than one observation were necessary to settle such an important question.

Chapter V considers at length the "Treatment of Hepatic Diseases," and is written in a pleasant, colloquial style, which makes it very interesting reading. Not that there are any particularly new suggestions as to treatment, but old ideas are presented in an attractive form. Under the head of mercurials the author states that, besides the direct action of mercury upon the duodenum, whereby its stimulative effects are "communicated, by reflex nervous action, along the bile-duct to the gall-bladder, . . . exciting to immediate contraction its muscular coat," it acts in two other ways—through its antiphlogistic action upon the hepatic capillaries, and by impoverishing the blood "by its disintegrating power on the cell-walls of the red corpuscles." Doubtless the latter theory will strike most readers (especially the *unscientific*) as rather fanciful. Since it rests merely upon the basis of the writer's assertion, we have no hesitation in criticising its appearance in a work which professes (vide preface) a solid foundation of careful experiment and observation. The remarks on "Germicides" are unsatisfactory, in that the author does not make clear what the relation is between the antiseptic powers of certain drugs and their value as hepatic remedies. Dr. Harley's experience with mineral springs will be read with interest, though with us they are less fashionable than in England.

With Chapter VI we enter upon the main body of the work. There are several pages on "Biliousness," which is described as acute, subacute, and chronic. The author stoutly maintains his allegiance to calomel as the remedy *par excellence*.

Chapters VII to XV, inclusive, treat of jaundice from the stand-point of its etiology, a novel but rather confusing arrange-

ment, since from the prominence given to one feature of a disease we are in danger of losing sight of other equally important symptoms. But this peculiarity is understood, if we bear in mind the fact that the book is avowedly a contribution to the chemistry rather than the pathological anatomy of hepatic diseases. We remark with some surprise the application of the term "Hepatitis" to congestion of the liver, in which Dr. Harley differs from standard writers on general medicine; and he does not justify such a use of the word by any reference to pathological observations. Under Chapter X, "Jaundice, the Result of Hepatic Disease, caused by Disease-germs," the author includes acute yellow atrophy, which he regards as a sporadic form of the so-called "contagious jaundice" of the tropics. The cerebral disturbances seen in febrile forms of hepatic diseases are explained by what is fitly termed a "novel theory"—that the germs present in the blood consume the oxygen necessary for the proper nutrition of the nerve tissue (!). This idea is further elaborated in the section on the "Etiology of Pyrexia," where it is stated that rise in temperature is "nothing else than the chemico-physical effects of the heat developed by the germ's *respiratory* activity." "These remarks may probably appear to some of my readers as absurd," adds Dr. Harley, apologetically, and he endeavors to strengthen his position by comparing the febrile phenomena to the ordinary processes of fermentation, in both cases diurnal variations of temperature being observed. "There is nothing surprising in the fact that the same periodic changes should equally take place in a living human body and in a dead wooden vat, etc." Further comment is unnecessary. We may be pardoned for delaying so long over this chapter, but we have done so because in it we touch the essence of the whole book—the effort of a specialist to reconstruct a new theory of disease from his own stand-point alone, a tendency at once harmful and to be deplored. A few pages further on, disease-germs are also made responsible for the factor observed in various diseases; in fact, it is only the *normal* odor (the author's italics) of the germs which we smell, and not that of the diseased tissues at all. This theory is advocated on grounds which seem to us quite as untenable as the preceding. Chapters XI, on "Biliary Concretions," and XVI, on "The Chemistry of the Excretions," are excellent, based as they are upon the author's wide knowledge of physiological chemistry.

With Chapter XVII we enter upon a consideration of "Diseases of the Liver not necessarily associated with Jaundice," under which are included abscess, carcinoma, hydatids, cysts, and syphilitic, fibroid, fatty, and amyloid forms of degeneration.

We can only speak briefly of the remainder of the volume. The chapter on "Abscess" presents a thorough and comprehensive view of that subject. Under the section on "Cancer" the statement is made that "the existence of a veritable specific form of cancer-cell is not a conceit of the imagination, but it is easily and infallibly recognizable by the eye of the initiated." This is only another example of the dogmatic assertions in which the book abounds. Nearly fifty pages are devoted to the subject of "Hydatid Disease of the Liver," while amyloid degeneration is dismissed with three. Chapter XXVI deals with "Affections of the Gall-bladder and Common Bile-duct." A concluding chapter treats of hints in diagnosis, and briefly sums up the entire subject.

We can not conclude without a few words as to the general impression of this book. Notwithstanding the acknowledged learning and ability of the author, the high scientific standard at which he aims, and his clear and forcible style, a certain feeling of disappointment steals over us as we turn the last page and ask whether we have indeed unraveled "the tangled skein of secrets which involves the vast majority of hepatic disor-

ders," a task in which Dr. Harley promised to assist us, through the aid of physiological chemistry—"the only talisman." It is not for the general reader to pass too severe a judgment upon a monograph which represents the results of years of study and observation. Such a work rests upon its own intrinsic merits, not upon the varying opinions of individual critics. The book at which we have glanced so hastily is thoughtful, suggestive; we leave it to the judgment of others whether it adds to the sum of medical lore, whether the intricate phenomena of disease are explicable by the light of any single science.

The Diseases of the Spinal Cord. By BYRON BRAMWELL, M. D., F. R. C. P. (Edin.), Lecturer on the Principles and Practice of Medicine, and on Medical Diagnosis, in the Extra-Academical School of Medicine, Edinburgh, etc. Edinburgh: MacLachlan & Stewart, 1882. Pp. xxiii-300.

For the student of neurology, and, as well, for the practitioner who has not yet reached an "expert" eminence from which he can look down upon all text-books, Dr. Bramwell's present treatise is, beyond comparison, the best work of its kind which has thus far come to our notice. Beginning with the anatomy and physiology of the cord, the reader is gradually led to foresee the symptomatology of lesions of different tracts, and, if he possess ordinary intelligence, will find himself a tolerable diagnostician even before he reaches the specific descriptions of classified spinal diseases.

A prominent feature of the author's teaching lies in considering the spinal cord as a series of segments, each of which, with its anterior and posterior pairs of nerve-roots, may be viewed as "a distinct spinal cord for a definite area of the body." The relations of these segments to each other and the functions of their several parts are described in accordance with the most recent state of our knowledge, and ingeniously demonstrated by means of diagrams, in the use of which Dr. Bramwell is peculiarly happy. As regards questions still in dispute among physiologists, the opposing views of different authorities are in most instances simply stated without any indication of the author's preference, although he appears to look with favor on the theory that the lateral columns convey some portion of the sensory tract, and distinctly affirms the almost total decussation of the sensory fibers at or near the level of their entrance to the cord. Of the relative parts played by the posterior gray or white substance he says nothing definite, but leaves us to infer that he regards the latter as the principal conducting channel to the cerebral perceptive center, through the posterior part of the internal capsule. Of the rather visionary subdivision into special tracts for touch, pain, tickling, heat, etc., he says (wisely, as it seems to us) nothing at all. Vaso-constrictor and vasodilator fibers are "probably" located in some as yet undetected part of the lateral columns, with re-enforcing vaso-motor centers in the cord itself.

The next section treats of the alterations of functions attending pathological conditions of the various portions of the cord. Intra-medullary lesions are studied as they are limited to definite physiological tracts, or affect, indiscriminately, a greater or less extent of the transverse section, and under the former head the distinction between primary disease and secondary degeneration is lucidly explained. The pathology and symptomatology of lesions involving, respectively, the anterior cornua, the crossed pyramidal tracts, and the postero-external columns, are successively considered; then those of "indiscriminate" lesions, comprising myelitis, disseminated sclerosis, intra-medullary hæmorrhage, and tumors; and, finally, of the conditions arising from extra-medullary lesions of the meninges or osseous structures, hæmorrhages, or tumors. Throughout this

chapter the rationale of the resulting symptoms is concisely set forth.

The most practically valuable chapter is that which describes the clinical examination of patients with spinal disease, fully describing the diagnostic methods of investigating the motor, sensory, and reflex conditions, and the pathognomonic importance of the various collateral disturbances—trophic, gastric, articular, etc. The explanation of the mechanism of the vesical reflex and the differential diagnosis of different forms of incontinence or retention of urine merit especial commendation. In speaking of electro-diagnosis, the author falls into the ambiguity, common among British writers, of using "interrupted" as a synonym for the Faradaic current; but in other respects his remarks on this topic leave little to be desired. From the table of normal aesthesiometric measurements we note the omission of any reference to the lower extremities, which are chiefly involved in the majority of cases. The concluding chapter briefly discusses the etiology, clinical course, diagnosis, prognosis, and treatment of the more commonly observed individual organic diseases of the cord, this portion of the work being, by the author's admission, an afterthought while the earlier parts were passing through the press, and hence somewhat displaced from its natural connection with the earlier chapter on pathology. The numerous illustrations, particularly the colored plates of normal and morbid microscopic sections, are excellently executed.

A Guide to the Practical Examination of Urine. For the use of Students and Physicians. By JAMES TYSON, M.D., Professor of General Pathology and Morbid Anatomy in the University of Pennsylvania. Fourth edition, revised and corrected. With colored plates and wood engravings. Philadelphia: P. Blakiston, Son & Co., 1883. Pp. 196.

THIS excellent little volume has already elicited so many expressions of approval that the present edition needs no additional commendation. Several important additions and corrections appear, of which the reader will approve. The description of the nitric-acid test for albumin, formerly rather obscure and misleading, is now clearly stated. New matter is added to the section on the tests for sugar; a page is devoted to the significance of hæmoglobinuria, as distinguished from hæmaturia, and another to the various tests for hæmatin. In the portions devoted to quantitative analyses and to urinary deposits no important changes will be noted. In contrast to the statements in Heitzmann's recent work, we remark with pleasure that Dr. Tyson still adheres to the belief that the presence of a few epithelial cells of a certain type in the urine is not enough to mark the site of a lesion in the urinary tract. Three or four new drawings appear in this edition. In brief, as it stands, the little book will continue to hold the foremost rank in practical treatises on urinary analysis.

Anatomical Technology, as applied to the Domestic Cat: an Introduction to Human, Veterinary, and Comparative Anatomy. With Illustrations. By BURT G. WILDER, B.S., M.D., Professor of Physiology, Comparative Anatomy, and Zoölogy in Cornell University, etc., and SIMON H. GAGE, B.S., Assistant Professor of Physiology and Lecturer on Microscopical Technology in Cornell University, etc. New York and Chicago: A. S. Barnes & Co., 1882. Pp. xxvi-575. [Price, \$4.50.]

As the authors state, this book is mainly intended for beginners in the study of anatomy—for those who expect to be physicians, veterinarians, or physiologists. It is very plain and

elementary in its arrangement, and presupposes nothing in the way of anatomical knowledge. The terminology is entirely scientific. Such distinctions as *upper* and *lower*, *anterior* and *posterior*, which are often misleading and confusing, are entirely absent, and are replaced by the rational terms *cephalic*, *caudal*, *ventral*, and *dorsal*. We know of no better way to excite enthusiasm for the study of human anatomy than to encourage dissections of the lower mammalian vertebrates.

BOOKS AND PAMPHLETS RECEIVED.

Vision: its Optical Defects, and the Adaptation of Spectacles, etc. With seventy-four illustrations on wood. By C. S. Fenner, M.D. Second edition. Philadelphia: P. Blakiston, Son & Co., 1883. Pp. 309. [For sale in New York by E. R. Pelton. Price, \$3.50.]

Transactions of the Medical Society of the State of Pennsylvania, at its thirty-third annual session, 1882. Published by the society. Pp. vi-467.

Illinois State Board of Health. Circular No. 2 (Diphtheria); Circular No. 3 (Scarlet Fever); Circular No. 4 (Typhoid Fever). Pp. 7, 9, 8.

The Treatment of Acute Rheumatism: an Analysis of the Results obtained under Different Systems of Treatment in St. George's Hospital during the years 1877 and 1878. By Isambard Owen, M.D., Lecturer on Materia Medica and Therapeutics, and late Medical Registrar of St. George's Hospital. London: J. & A. Churchill, 1883. Pp. 28.

First Annual Report of the Woman's and Child's Hospital and Dispensary of the Woman's Medical College of Baltimore. For the year ending December 31, 1882.

On Some of the Advances which have been made in Surgery during the Last Decade. By James Whitson, M.D., etc. Pp. 12. [Reprint from the "Glasgow Medical Journal."]

On Sudden Death by the Entrance of Air into the Uterine Veins. By F. W. Draper, M.D., etc. Pp. 24. [Reprint from the "Boston Medical and Surgical Journal."]

The Treatment of Acute Eczema. By George H. Rohé, M.D., etc. Pp. 7. [Reprint from the "Medical Chronicle."]

An Investigation into the Parasites in the Pork Supply of Montreal. By William Osler, M.D., etc. Pp. 14. [Reprint from the "Canada Medical and Surgical Journal."]

Sur la manière différente dont se comportent les parties supérieure et inférieure de l'intestin grêle au point de vue de l'absorption et de la transudation. Par MM. Lannois et R. Lépine. Pp. 92 to 111, inclusive. [Reprint from the "Archives de physiologie normale et pathologique."]

Note pour servir à l'étude du faisceau sensitif. Tubercule occupant la partie postérieure de la capsule interne; hémianesthésie sensitivo-sensorielle. Par le Dr. M. Lannois. Pp. 1021 to 1033, inclusive. [Reprint from the "Revue de médecine."]

THE TREATMENT OF INCREASED ARTERIAL TENSION.—Dr. Solomon Charles Smith, Surgeon to the Halifax Infirmary, after discussing this subject in the "British Medical Journal," and dwelling at length on the physiology of the circulation, concludes that the presence of increased arterial tension or blood pressure involves the existence of obstruction at one end, and increased heart-force at the other; that it is important to distinguish between these two conditions; that the form of trace usually considered indicative of high tension really only shows obstruction, which, while necessarily occurring with it, may also occur by itself; that the measure of the tension is the pressure required to stop pulsation in the artery or the circulation in the limb; and that, while we should always try to reduce abnormal obstruction, we should but seldom interfere with the tension as such, unless it threaten danger to the heart or vessels.

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THE NAVAL MEDICAL SOCIETY.

IN a recent number of the journal our Washington correspondent alluded briefly to the newly organized Naval Medical Society. The society holds monthly meetings, and, judging from the first number of its "Proceedings," a copy of which has kindly been sent us, as well as from numerous other signs that have been given by the medical corps of the navy during the past few years that it has no intention of confining itself wholly to the routine work of the service, the organization is destined to become one of no little importance. In a circular accompanying the number of the "Proceedings" to which we refer, we find it stated that "the officers of the medical corps of the United States Navy, in order to establish more intimate social and friendly relations among its members, to furnish occasions for the interchange of professional experiences, and to assist each other in scientific inquiry and research, have agreed to form an association, to be entitled the Naval Medical Society, in which every officer of the medical corps shall have the right of membership upon notifying the secretary that such is his desire."

At the annual meeting, held January 4, 1883, the following officers were elected for the current year: President, Dr. Albert L. Gihon; Vice-President, Dr. John M. Browne; Secretary, Dr. James M. Flint; Business Committee, Dr. Thomas J. Turner, Dr. Adolph A. Hoehling, and Dr. Thomas H. Streets. The Business Committee is charged with the business affairs of the society, such as the appointment of places of meeting, unusual correspondence, the selection of subjects for presentation to the society, the arrangement of public lectures and publications when they may be considered advisable, and the suggestion of provisions for defraying incidental expenses that may be thought expedient. All these matters are generally much better managed by a committee than by the entire body for which they are working, and with a very decided saving of time to the latter. We think, therefore, that the new society has done an exceedingly good thing in turning over its business affairs to a committee at the outset. Many a snarl will thus be prevented, and the society will be able to give its whole attention to its legitimate work.

The contents of the first number of the "Proceedings" embrace four papers upon various aspects of "The Line of Duty," or, more definitely stated for the civilian comprehension, a consideration of the circumstances which should incline a medical officer to report that a certain death, injury, or disability was met with as the result, to a greater or lesser degree, of exposure "in the line of duty," or, contrariwise, that it was not so incurred, with a view to support or invalidate a claim of pen-

sion. It will be seen at once that no more practical subject, or one more intimately connected with a just and intelligent performance of one of the weightiest tasks that can be imposed on a medical officer, could have been presented for discussion. That the members of the society entered earnestly upon its consideration is evinced by the industry displayed by the authors of the papers, Dr. J. M. Flint (two papers), Dr. T. D. Myers, and Dr. T. J. Turner, in citing instances, real and hypothetical, in applying precedents, and in analyzing both the one and the other, as well as in shedding the light of medical knowledge on the matter. It is still further evinced by the fact that the discussion occupied the society for three consecutive meetings, ending in the adoption of the following resolution:

"*Resolved*, That it is the sense of the Naval Medical Society that a man or officer who is receiving pay, and is subject to orders, and who becomes disabled by disease or injury during his military career, should be considered as incurring his disability in the line of duty; the disease or injury not being the result of any act of personal imprudence or impropriety, or existing prior to his entrance into the service, or the consequence of inherited disease."

It seems to us that the positions taken in this resolution are sound beyond cavil, and that their deliberate expression as the outcome of so prolonged and earnest a debate by such a body should go far toward systematizing rules of practice in the matter of granting or withholding pensions. There is one point that seems to us specially noteworthy: it is assumed that the disqualifying circumstances alluded to in the concluding part of the resolution are enough, by their mere existence, notwithstanding they were not detected at the medical examination of the cadet or the recruit, to invalidate an application for a pension. "The Government," said Dr. Flint, "does not hold itself responsible for the errors of judgment of its examining surgeons, and does not take the recruit as it would buy a horse, accepting the consequences of any defects undiscovered at the time of purchase. The recruit warrants himself to be sound." Such a position as this, enunciated not in any spirit of opposition to just claims, but as a succinct and forcible exposition of numerous decisions, and, we may add, embodying the conclusion to which an unbiased mind must come, ought to have some effect in preventing the disappointment that so often follows in the train of false hopes on the part of claimants—hopes fed by viewing the cause of disability only through a medium warped by self-interest. An analogous case is that of the claimant of life insurance, in an instance in which the insured, affected with disease potentially, but with no overt manifestation, thinks it no harm to conceal the fact, so long as the medical examiner fails to detect it, and puts no direct questions bearing upon it. There are many men, essentially honest men, too, who take this view of an application for life insurance: that the company tacitly undertakes to abide by the consequences of any failure on the part of the examiner to bring out the whole of the facts bearing upon the applicant's expectation of life. They forget that they are really understood to *warrant themselves to be*

sound, and that the medical examiner is not pitted against them in a trial of skill as to which of the two shall outwit the other, but rather is charged with the duty of bringing his special knowledge to bear in the detection of hidden signs of present or impending failure of health.

It is by no means a foregone conclusion that every insured man who dies leaves a valid claim against the company, or that every officer or enlisted man killed or disabled while in the pay of the Government furnishes just occasion for a claim to pension. And yet, while the Naval Medical Society has thus given in its adhesion to naked justice, we can well believe the full truthfulness of Dr. Flint's concluding sentence: "No medical officer ever wrote 'not in the line of duty' in a case involving the reputation or comfort of patient or family without a clear conviction of duty and the keenest sense of regret; and honor, and not obloquy, is due the man who, with the courage of his convictions, resolutely performs a disagreeable duty which offers him no possibility of reward except that which flows from his own consciousness of rectitude."

THE NEW YORK MILK SUPPLY.

THE well-to-do New Yorker who, when he has entered upon that rural tour of inspection which he is called upon to undertake every spring, in the hope of securing a tolerable retreat for his family during the hot months, listens, without any display of impatience, to the thrifty farmer's boast that "city folks" rarely get a taste of such milk as he proposes to furnish his summer patrons with, can do so quite complacently, for he knows that every morning milk is brought to his door that the ordinary farmer would look upon as too good to be used in his own family without dilution, or *a fortiori* to be set before those who, he takes it for granted, really know no more about the quality of milk than he himself knows or cares about the consequences that may follow the contamination of well-water.

The city man knows that the milk he gets at home is far superior to what his family are at all likely to be provided with by the keeper of a country boarding-house, and he knows, too, that in his own house his children have all they want of it, which, to judge from their past experience, is not sure to be the case during their sojourn in the country. In short, he knows that he has abundant reason to be satisfied with the milk supplied to his own household, but as to the liquid called milk that the poor are able to obtain for their children in the city, if he ever thinks of the matter at all, he is apt to place a blind trust in the supervision of the Board of Health—a supervision that, we really believe, does indeed go far to protect the poor children of the tenement-house districts against the vile stuff that was formerly dealt out to them from the so-called "dépôts."

We can well understand the warfare waged by the milkmen against the lactometer. That little device, together with the other measures employed by the watchful inspectors, tends most decidedly to restrict the rapacity of the middlemen to the two-hundred-per-cent. advance, more or less, on the producer's price; and to do away with the time-honored side-profits of

skimming and the free use of the pump. The Board of Health has full power to stop the sale of skimmed milk, and we understand that it exercises that power. Whatever may be thought of the absolute right of the Government thus to interfere with the sale of an article not in itself directly noxious, but only indirectly injurious, this is certainly a case in which it would be difficult to devise any means of preventing unscrupulous retailers from adding to skimmed milk just enough fresh milk to bring it up to the standard of the milk given by the poorest of cows, to use the words of one of the daily papers, except the positive prohibition of the sale of skimmed milk. Moreover, the prohibition need work no hardship to any one, for whoever really needs skimmed milk for any particular purpose has only to skim his own milk, and, if he can not make use of the cream himself, he will find a ready market for it.

But, as we understand it, the power of the Board of Health is restricted to the city; it is still open to middlemen to manipulate milk *in transitu*. We trust, therefore, that even this resource of knavery will be cut off by the operations of an organization that has been started, seemingly under unusually favorable auspices, with the avowed purpose of driving dishonest dealers from the field. This organization, known as the Erie Milk Producers' Association, with its headquarters at Goshen, has obtained the promise of most substantial co-operation on the part of the officials of the New York, Lake Erie, and Western Railroad, who undertake (1) to make an arrangement with other railroads whereby each will return all "foreign" cans to the proper road; (2) to detail an official to collect detained cans belonging to its patrons, and return them to their owners; (3) to provide free passage and every facility for a milk inspector on every milk train; (4) to sell the surplus milk at not less than the established price, and return the cans at once, remitting the money to the farmer; (5) to return such milk as can not be sold, free of charge; (6) to collect the bills for milk with the freight when requested, and remit to the farmer without charge or commission.

Another very promising feature of the scheme is, that two of the traveling inspectors appointed by the Board of Health of the city have received the same appointment from the State Board of Health and from the Milk Inspector of New Jersey, so that there can be no question as to their jurisdiction at any point on the route between the milk-producing counties and the city. The association undertakes, also, to furnish milk to customers at a reasonable profit to the producers, doing away with the extortion of the middlemen, which latter have heretofore, in plain violation of the common law, established both the price paid to the producers and that demanded of consumers. In view of the leading part played by the railroad in question in the business of bringing milk to New York, and in view of the fact that the movement does not put on the sentimental cloak of philanthropy, but is nothing more nor less than a business-like and straightforward effort on the part of the milk-producers to better their own condition by a system which, if carried out according to their promises, will certainly not only have that effect, but also benefit the community at the same

time—in view of these considerations, it seems to us that a great deal may be hoped for from the organization in the direction of insuring the provision of pure milk for the entire population of New York.

THE SKIN AND CANCER HOSPITAL.

NOTWITHSTANDING the great number of hospitals with which New York is supplied, both general and special, we doubt if there are many practitioners here who have not at times had occasion to regret the practical non-existence of any institution to which patients with certain forms of cancer, especially those unable to obtain the private services of a competent surgeon and a capable nurse, to say nothing of proper quarters, could be sent with a reasonable expectation that they would receive the full benefit of what hospital treatment should be able to accomplish for them. We do not mean to imply by any means that there are no hospitals in New York into which, from the nature of the case, it would be hopeless to attempt to get any cancerous patient admitted, for, strictly speaking, such is not the fact. In individual instances, however, the circumstances often amount to such a state of things. Take, for instance, the case of a woman with cancer of the uterus. The doors of the Woman's Hospital are closed against her, unless the disease happens to be so equivocally manifested as to make a positive diagnosis at the outset impracticable. She is very likely to find that those in charge of the general hospitals feel constrained to deny her admission, in order that they may keep what few spare beds they may chance to have, if any, for the benefit of sufferers for whom, it is very properly felt, surgery has a better prospect of accomplishing something tangible. Even those general hospitals that are provided with a special gynecological service find it necessary to limit the number of patients that they can admit into that department. And so the victim of uterine cancer often finds herself effectually debarred from any better resort than an almshouse, a home for incurables, or her own wretched abode, her continued residence in which not only subjects her family to an amount of suffering scarcely less than her own, but actually shortens her life, and deprives her of the palliation she would be pretty sure to obtain in a hospital.

The need of a special hospital for the treatment of cutaneous diseases, while probably not so obvious, is one that had really come to be quite pressing. In the present state of dermatological practice, topical measures play such an important part, and their systematic application is so indispensable to the full degree of success attainable, that surely no one at all conversant with this branch of medicine will question the great advantage of having provision made for the satisfactory employment of all the appliances that belong to hospital treatment in the case of patients with cutaneous affections. To those who have not had their attention turned to the importance of taking measures for curing such patients with all possible celerity we would suggest that many skin diseases are contagious, and that every victim of one of those affections may serve to spread the disease through the community. Let

any one reflect that it is quite within the power of such a hospital as this to cure a man of the itch within a few hours, and send him home shorn of his capability of imparting that disease to others. With very little qualification, the same may be said with regard to several others of the dermatoses, some of which, if allowed to run on unchecked, lead to permanent disfigurement if to no graver evil.

In view of these considerations, it is our conviction that there will be no lack of work, even at the outset, for the New York Skin and Cancer Hospital, which has recently been established. A temporary building, at No. 243 East Thirty-fourth Street, has been fitted up for the purposes of the hospital, and the trustees describe the building as suitable, although they realize that its capacity is not all that is needed. On this account they have already selected land elsewhere for a permanent and larger building in the future. In behalf of no similar undertaking could the aid of the benevolent be asked with more propriety, or, we will add, be claimed more justly.

THE ILLINOIS STATE BOARD OF HEALTH.

IN our issue of January 20th, speaking of the regulations adopted by the Illinois State Board of Health with regard to the "good standing" of medical colleges, we said: "Indeed, in the list of institutions approved of by the board we find several which do not require of candidates for graduation all the conditions that the committee enumerate." We are glad to learn that after the sessions of 1882-'83 the diploma of no college will be recognized which does not conform to all these requirements. This action of the board strikes us as the most decided step yet taken in this country to compel the adequate education of medical men, being of the same effect, in kind if not in degree, as the State examination in Germany. It will be noted that several of our leading colleges will have to raise the standard of their curriculum, or else their future graduates will be debarred from practicing in Illinois on the strength of their diplomas.

THE PHYSICIANS' MUTUAL AID ASSOCIATION.

MORE than once before we have taken occasion to commend the excellent work that has been accomplished, year after year, by the New York Physicians' Mutual Aid Association, and it is with great pleasure that we see, by its last annual report, that the field of its beneficent operation is still growing larger, while the benefit to each individual likewise increases.

Financial success is the final test of any undertaking of this sort, and, judged by that standard, the association may certainly be said to stand now on an assured footing. The accounts of the association, as many of our readers are doubtless aware, deal with an assessment fund, a contingent fund, and a permanent fund. Each of the three is shown by the report to have increased during the fiscal year—the first from \$455.67 to \$640.87, the second from \$226.68 to \$240.26, and the third from \$8,858.76 to \$10,586.38. The increase in the permanent fund is an achievement on which the association is specially to be congratulated, for, now that it has reached the amount specified by the by-laws as that under which its proceeds can not be touched, it can be made available for certain measures of relief that heretofore have been impracticable. For this favorable state of things the association, not only as it stands now, but in the growing membership that we trust is before it, is indebted to the generosity of a few of its members, and their example should make it easier hereafter for the association to extend its

resources by greater increments than are provided for by the way in which the fund is constituted. It is our earnest hope that such may prove to be the case.

THE ELECTRICAL TREATMENT OF EXTRA-UTERINE PREGNANCY.

WE recently commented upon a paper by Dr. A. D. Rockwell, on "The Successful Treatment of Extra-uterine Pregnancy." We would now call attention again to that one of the author's seven cases which was one of associated intra-uterine and extra-uterine gestation. This, it would seem, is an exceedingly rare complication, for, according to Dr. B. B. Browne, of Baltimore, whose researches into the literature of the subject appeared in the last issue of the "Gynecological Transactions," but twenty-four reported cases could be found. In one of these cases, the extra-uterine foetus passed down upon the posterior fornix, and was removed through the vagina. This was followed by the birth of the intra-uterine child alive and the recovery of the mother. In three other cases laparotomy was performed, with fatal results to the mother, in all. Of the twenty remaining patients who were left to nature, eleven died, while nine recovered by the discharge of the fetal remains through the process of ulceration. But, of the whole number, the child survived in seven cases.

In the light of Dr. Rockwell's report of the efficacy of electricity in extra-uterine pregnancy, and especially in his case of twin pregnancy, the statistics are of much interest, for if by this agent the foetal life can be so readily destroyed without injury to the mother, and, in cases of twin pregnancy, without disturbing the intra-uterine gestation, the use of the method constitutes an era in the management of these cases.

Proceedings of Societies.

NEW YORK OBSTETRICAL SOCIETY.

A STATED meeting was held December 20, 1882, Dr. CHARLES C. LEE, President, in the chair.

The pathologist read the following REPORT ON THE UTERUS EXTIRPATED BY Dr. W. C. BURKE, of South Norwalk, Connecticut, presented to the Obstetrical Society, December 5, 1882. The specimen was preserved in Wickersheimer's solution, and, therefore, probably somewhat increased in size. The uterus measures, from os to fundus, external measure, 75 mm.; from tube to tube, 40 mm.; in circumference just below the tubes, 95 mm.; around middle of cervix, 100 mm. The depth of the cavity of the uterus is 65 mm., of the body 25 mm., the isthmus 5 mm., and the cervix 35 mm. The wall of the body and of the cervix measure each 15 mm. in thickness. All these measures are normal except that of the cervix, which is increased 10 mm. in length.

The mucous membrane of the body and isthmus looks healthy. Of that of the cervix, on the contrary, a narrow longitudinal strip only on the posterior wall has a healthy appearance, and shows plicæ palmatæ, all the rest being transformed to a partially bushy, partially pulpy mass, at the upper end of which, on the anterior wall, is seen a polypoid growth of the size of a hazel-nut. The os externum looks healthy, but is distended by the diseased mass situated immediately above it, and showing in its opening.

Part of the cervix was hardened in a concentrated solution of picric acid, and sections thereof stained with ammoniated carmine.

The Inner Half.—Near the inner surface the tissue is composed of very small round cells, with very little connective tissue between. The cells have a comparatively large nucleus. Very large and thick-walled arteries are seen in this part. In many places the cells are found in rows like beads on a string, which probably is due to the degeneration of muscular bundles to sarcomatous tissue. Glands are nowhere seen.

On the villi covering the inner surface are found numerous large ciliated columnar epithelial cells with nucleus, but even on excellent specimens they nowhere form a regular brim, as on the healthy cervix.

In the remoter parts is found muscular tissue, but with a great increase of connective tissue, in which are interspersed isolated cells similar to those near the internal surface.

Outer Half.—This is formed by normal muscular tissue, but the bundles are separated by broad bands of connective tissue interspersed with single spindle cells, which seem to be muscular fibers, but may also be connective-tissue corpuscles.

The diagnosis is, therefore, *Diffuse Small-Round-Cell Sarcoma* starting from the mucous membrane of the cervix, extending outward, and chronic inflammation of the outer half of the cervix.

It is very rare that sarcoma, especially the diffuse form, starts from the cervix. Generally the process begins in the sub-mucous muscular tissue of the body of the uterus. (Gusserow, "Neubildungen des Uterus," p. 150, in Billroth's "Frauenkrankheiten," vol. i.)

TUBERCULOSIS IN CHILDREN.—Dr. B. F. DAWSON presented the lungs, the spleen, and a portion of the left side of the diaphragm, removed from an infant that had died in the Foundling Asylum of general miliary tuberculosis. The specimens were thickly studded with tubercles. The interest of the case related largely to the difficulty of diagnosis, which, as Dr. Dawson believed, was usual in these little patients. Although tuberculosis had been suspected, it was not positively diagnosed before death.

MENINGITIS IN CHILDREN.—Dr. DAWSON also presented the brain and portions of the spinal cord of a boy five years of age who died recently in the Foundling Asylum of cerebro-spinal meningitis arising from pyæmic blood poisoning. The history, in brief, was as follows: The child some months ago had been sent out of the asylum to be cared for, and was returned about two days ago, simply with the history that it was not strong, and had vomited occasionally. There was severe eczema of the scalp, with the formation of numerous abscesses. The temperature was 100.25° Fahr. The abscesses were opened, poultices were applied, and tonic treatment was prescribed. On the third day, however, the temperature had risen, pus was being discharged from the abscesses, the child was peevish, and its general appearance was not favorable. Although it relished food, and nausea and vomiting were no longer present, there was some trace of albumin in the urine. The child appeared better on the morning of the 11th of December; the temperature was 101° Fahr., but by evening it had risen to 103.75°. The fever diminished toward morning, and there was marked perspiration. The general treatment was continued, with the addition of quinine and warm baths. Dr. Dawson was at that time of the impression that the elevation of the temperature was due to pyæmic poisoning originating in the abscesses, as they were ill-looking, and the scalp was very boggy. On the 14th of December it was observed that the child talked with difficulty. There was nervous twitching of the left arm, the temperature was 103.75°, sordes began to collect on the teeth, the child vomited twice in the evening and again the next morning, and died twenty minutes after having a convulsion.

The autopsy was made by Dr. Northrup, pathologist to the

asylum. The body was well nourished, the skin was very pale and faintly livid in spots. The condition of the scalp was as had been mentioned in the history. A recent thrombus was found in the mesial sinus, and one evidently of older date in the left lateral sinus. The surface of the brain was covered with pus; the general color was a dull yellow. Over the side of the left hemisphere was found an extravasation of blood, which was disorganized, dark and granular in appearance; the ruptured vessel was shown to be a branch of the middle cerebral artery. The convex surface of the right hemisphere showed signs of inflammation, as did also that of the left, but in slighter degree. The exudation on the base was less than on the convexity. The lungs were œdematous, the pleural cavity contained about one ounce of turbid fluid, the heart was normal, the liver was fatty and enlarged, the spleen was normal; one kidney appeared to be affected with parenchymatous inflammation, which, however, had not been evident from an examination of the urine during life. The spinal cord showed a purulent exudation on its posterior surface.

The specimens were interesting as showing that meningeal inflammation must have existed for a much longer time and in a much severer degree than had been supposed, and the case was an illustration of what had been remarked by others—that children show the effects of these acute inflammatory affections in a less degree than adults. The pathologist had confirmed Dr. Dawson's opinion that the meningeal inflammation arose from pyæmic blood poisoning due to the abscesses resulting from the eczema of the scalp.

With regard to the first case, Dr. Dawson asked Dr. W. M. Polk if he had found it difficult to make the diagnosis of miliary tuberculosis in children from the physical signs.

Dr. POLK replied that he had found it very difficult to do so. The physical signs were very much like those of simple capillary bronchitis, and where these were present, in connection with signs of tuberculosis in other parts of the body, he should suspect pulmonary miliary tuberculosis.

PLACENTA FROM A CASE OF TRIPLE PREGNANCY.—The specimen was presented by Dr. POLK, and had been removed from a woman who miscarried at about the eighth month. On account of the large size of the abdomen, Dr. Polk had suspected a twin pregnancy, and, therefore, made careful examination for the beat of the foetal hearts, but he was unable to distinguish more than one sound, which, however, was rather widely diffused. Labor was very easy indeed, and continued only an hour and three quarters to the expulsion of the placenta. But a few minutes elapsed from the birth of one child to that of the other in succession. All lived, were females, and weighed about five pounds each. The placenta weighed forty-six ounces, and showed very plainly three sacs, one of them being quite distinct from the two others. Dr. Polk thought the fact of there being no apparent demarkation in the placenta went to show that the ova had proceeded from the same ovary, although he must admit, with Dr. Garrigues, that this opinion was not susceptible of positive demonstration. The close proximity of two of the cords, their insertions being side by side, would also seem to point to the probability that two of the fetuses had sprung from a single ovule with a double germ.

Dr. H. J. GARRIGUES remarked with reference to the commonly accepted view as mentioned by Dr. Polk—namely, that delivery was likely to take place at a time corresponding to a menstrual period—that, according to his observation, the statement was not sustained by facts. He had observed that usually both ovaries were not congested at the same menstrual period, but that they were congested alternately, and, in the cases of which he had been able to keep a record, delivery, whether premature or at full term, had by no means always occurred at a

time corresponding to some even multiple of the time between the beginnings of two menstrual periods. According to statistics given by Matthews Duncan of cases where the exact date of conception was known, confinement took place more frequently on the 275th day than on the 280th.

Dr. F. P. FOSTER remarked that it was not unusual for menstruation to occur at intervals a few days longer or shorter than a lunar month, and should the ideal period be anticipated by but half a day for ten months in succession, labor would fall upon the 275th day. Dr. Foster also remarked that about seven years ago he attended a patient who gave birth to triplets, all of the circumstances corresponding almost exactly with those in the case just related by Dr. Polk. Labor was short and easy. The children, all of whom were females, were born in rapid succession; the placenta was a perfect counterpart of what had just been exhibited.

Dr. CHAMBERLAIN attended a patient many years ago who miscarried at the fourth month, giving birth to triplets. If he remembered correctly, there were two placenta.

REMOVAL OF THE COCCYX AFTER INJURY.—Dr. GEORGE T. HARRISON presented the three lower bones of the coccyx which had been removed from a patient with the following history: Aged twenty-nine years, admitted to the Woman's Hospital, Dr. Emmet's service, in March, 1881; had been under treatment for the past nine years for uterine disease. Some weeks before, when sitting down, she struck the end of the coccyx on the corner of a chair. She was able to walk immediately afterward, but on the next day movement of the body and of the lower extremities gave severe pain in the region of the coccyx. This continued until she entered the hospital. In June the patient was discharged improved, but returned again in October. She was then unable to sit without great pain, or to stand longer than a few minutes at a time. Dr. Harrison here remarked that this patient had come under his care eight years ago, suffering from retroflexion of the womb, bound down by perimetrial adhesions. He succeeded in restoring the uterus to its normal position, and the patient was comparatively well until the accident before mentioned. Dr. Emmet thought the symptoms were due to perimetrial inflammation, and directed treatment accordingly; but, as no improvement followed, the coccyx was then removed, with the exception of the first bone, which was firmly ankylosed with the sacrum. The bone itself was not apparently diseased.

Dr. DAWSON asked whether, in cases in which motion could be detected in the coccyx, attended by pain and all the symptoms mentioned by Dr. Harrison, which were not relieved by other means, it was justifiable to remove the movable extremity. About a month ago he removed the fractured coccyx from a patient who had suffered for years from pain apparently attributable to a fall, striking the coccyx against the edge of a trunk. He had under care at present a young girl who had for years been treated for uterine disease such as had existed in Dr. Harrison's patient, and had been only partially relieved; but the coccyx was movable, and was the seat of considerable tenderness and pain, following a fall upon that point some years before, and the question had arisen whether the bone should not be removed.

Dr. HARRISON replied that, as the symptoms referred to still existed after relief of the uterine trouble, it would be entirely justifiable to remove the coccyx. Dr. Emmet had observed that in many cases symptoms which were apparently attributable to disease of the coccyx had disappeared on directing treatment to the uterus or its appendages, and he made it a custom, therefore, not to proceed immediately to the removal of the coccyx until it had been determined that the symptoms were not of a reflex nature.

The PRESIDENT remarked that he believed the subject of coccygodynia had not received the attention in this city, and perhaps throughout this country, which it deserved. This might have been due to the fact that many years ago, when the operation was being performed extensively in England, it was found subsequently that it had been done in many cases in which there was no necessity for it, and it therefore fell into disrepute. He believed that the view held by Dr. Emmet—viz., that in most cases in which symptoms of coccygodynia existed they were due to pelvic cellulitis behind the uterus—was, perhaps, open to criticism. He himself was cognizant of several cases in which removal of the coccyx had been attended with the greatest possible benefit, after a great variety of other means had failed to give any relief whatever. He had performed the operation with a successful result in two cases within the past year, all other means having failed. In one case there was found to be fracture of one of the bones, and in the other chronic periostitis, arising from a fall upon the stairs.

Dr. CHAMBERLAIN remarked that, although we should discountenance any unnecessary operative procedure which mutilated the body, he was not aware that any evil result had followed excision of the coccyx, and, the part being comparatively an unimportant one, it might be justifiable to remove it, even though it had not been positively demonstrated to be the seat of the trouble.

HENRY J. GARRIGUES, M. D.,

B. F. DAWSON, M. D.,

FRANK P. FOSTER, M. D., *ex-officio*,

Committee on Publication.

A STATED meeting was held January 2, 1883, Dr. CHARLES C. LEE, President, in the chair.

VESICO-VAGINAL FISTULA, WITH SPECIMEN.—Dr. P. F. MUNDÉ narrated a case as follows: The patient, a mulatto woman, came under his care at Mount Sinai Hospital about two months ago, having been sent from Jacksonville, Fla., by her physician, Dr. Drew. She was delivered of her first child, about seven years ago, with the forceps. Soon afterward there was incontinence of urine. Dr. Drew then first saw her, and made a diagnosis of vesico-vaginal fistula. Escharotics were applied, with the hope of closing it, but failed. When Dr. Mundé first examined the patient the bladder was empty; no urine was escaping through the fistulous opening, and it could not be discovered. Milk injected into the bladder escaped only through the urethra. The uterus and the bladder were bound together by firm adhesions. After the examination the temperature rose to 104° Fahr. At the second examination, made a week or ten days later, he was able to pass a probe into the bladder through a fistulous opening in the cervical canal, the anterior lip of the cervix having sloughed away. The fistulous opening could not be brought into view. An attempt was made to dilate the vagina according to Bozeman's method, and hot-water injections were administered. This treatment was continued for about six weeks. The patient was very sensitive to examination, and each time there was a slight elevation of the temperature. Friday, a week ago, an examination was made under chloroform as usual, and, during *gentle* traction by the tenaculum on the anterior edge of the funnel leading to the fistula, the fistulous opening was suddenly and unexpectedly brought plainly into view. The following Monday was set for a plastic operation to close the fistula, but within thirty-six hours after the examination the temperature rose to 107° Fahr., peritonitis developed, and at the end of a week the patient died. At the autopsy, extensive old adhesions were found; the uterus was firmly adherent to the bladder. In Douglas's pouch, on the left side, was a laceration of the peritonæum, which had probably occurred during traction

with the tenaculum at the last examination. There was also an abscess of the left ovary, which, however, had not yet ruptured.

Dr. A. JACOBI suggested the use of the galvanic-cautery wire in the treatment of these small fistulous openings.

Dr. MUNDÉ remarked that the situation of the fistula in this case was such that its closure with the cautery would almost certainly have resulted in cicatricial contraction of the cervix.

The PRESIDENT had seen a number of similar cases of vesico-vaginal fistula with a pin-point opening, both in his own practice and in that of Dr. Sims and Dr. Emmet, and he had found, contrary to the opinion expressed by Dr. Mundé, that, even when fully exposed to view, it was exceedingly difficult to close them successfully with the silver-wire suture. This difficulty was due to the presence of cicatricial tissue which had been produced by the attempts of nature at repair, or by previous treatment with caustics. His success with the galvanic cautery had not been much greater. With regard to the fatal attack of peritonitis in Dr. Mundé's case, it was evident that undue traction had not been made during the examination, and it was probable that the peritoneal adhesion which had given way, and which evidently was very friable, would have been lacerated under any other slight provocation. In not a few of the cases in which Emmet's operation for laceration of the cervix had been performed by unskilled operators, traction had been so rudely made as to result in a condition of the pelvic tissues which was liable to give rise to peritonitis upon the slightest exciting cause.

Dr. JACOBI further remarked that about twenty years ago he had occasion to treat a case of vesico-vaginal fistula in which the opening was quite small, and in that case he was enabled to effect a cure within four or five days by fifteen or twenty applications of a concentrated solution of nitrate of silver, made with a brush. His experience in these cases had not been extensive, but he felt convinced that, had the galvanic cautery been used in Dr. Mundé's case, before the cicatricial tissue had been augmented by the acid caustics, the fistulous opening could have been closed without injury to the cervix. With regard to the readiness with which peritonitis developed, he had examined the condition of the tissues post mortem in a number of cases, and had found the membrane at the seat of the inflammation thickened, of a white color, friable, easily breaking down under the finger, the seat of granular degeneration; and in many cases, doubtless, it would require but the slightest provocation during life to cause the parts to give way, probably resulting in fatal peritonitis.

PNEUMONIA IN THE INFANT.—Dr. B. F. DAWSON presented the lungs of a child that had died of pneumonia at the Foundling Asylum when five weeks old. The right lung presented several spots of lobular pneumonia, and the upper lobe of the left lung was the seat of general lobular pneumonia. The interest in the case turned upon the presence of certain spots very resistant to the touch interspersed throughout the portion of lung affected with the catarrhal inflammation, which he suspected, from their appearance on section, to be of the nature of croupous pneumonia—which was possible in lobular inflammation.

Dr. JACOBI understood Dr. Dawson to say that it was only within a few years past that croupous pneumonia had been recognized in children, and then but seldom. He believed this to be a mistake. He himself, as well as other authors, had recognized it a number of years ago, although until recently it had been generally believed to be a rule which had very few exceptions, that the pneumonia of infancy was lobular, while that of adults was usually lobar. This generally accepted view, however, which had prevailed formerly, was probably to be accounted for by the tendency of authors to copy the statements of others rather than to observe for themselves. Some claimed at the present time that the percentage of cases of lobar pneu-

monia as compared with lobular pneumonia in children was as one to three, four, or five. Baginsky, of Berlin, in his work on pneumonia, published about a year ago, gave the percentage as 27 to 100. Until a sufficient number of cases had been reported it would be impossible to make an exact estimate of the frequency of the occurrence of croupous pneumonia in children, but Dr. Jacobi thought it would probably be found to be present in about ten per cent. of all the cases.

Dr. Dawson remarked that he had seen cases of lobar pneumonia in infants, and the point to which he would call attention was not the infrequency of its occurrence, but the fact that in this instance there was evident lobular pneumonia with fibrinous exudation confined simply to the affected lobules.

Dr. JACOBI remarked that lobular pneumonia was just as likely to give rise to surrounding interstitial inflammation as lobar pneumonia was, and even more so. He should, therefore, consider the case one of lobular pneumonia with connective-tissue hyperplasia. He was unable to answer the question of the President as to the reason for the discrepancy in the figures given by different authors regarding the percentage of cases of croupous pneumonia occurring in childhood. Possibly climate and endemic influences had something to do with the difference in the proportion of cases occurring in different countries.

DIPHTHERIA IN THE NEW-BORN INFANT.—Dr. JACOBI related the following case as one which was very rare and interesting, being, however, the second case of the kind which had come under his care: A woman, the wife of a grocer in Thompson Street, menstruated for the last time on the 12th of March, 1882, and gave birth to a child at 11 p. m. on the 2d of November of the same year. Toward midnight of the 2d the midwife washed out the mouth of the baby with a linen cloth which had been washed on the 30th of October, ironed on the 31st, and then laid away with the rest of the child's clothing. During the night it was noticed that the child cried a good deal, and did not swallow. At 11 a. m. of the next day the midwife came again, and found the mouth of the infant of a dark red color, and a dark, almost black, discoloration of the edge of the tongue. This dark discoloration could be washed off. Corresponding with the upper lateral incisors there were two white spots, which were taken by the family to be congenital teeth. During the first day of the child's life, all, or nearly all, that entered its mouth came out again through the nose. On the next day, the 4th, Dr. Rudisch was requested by Dr. Jacobi to see the case. He reported to Dr. Jacobi the following morning that the same white spots remained. Dr. Jacobi then visited the patient, and found the whole of the mouth, the lips, the tongue, and the cheeks covered with a thick grayish-white membrane. Part of the membrane could be wiped off. The baby was hoarse, but there was evidently no laryngeal stenosis. The eyes and the nose were not affected. The baby died on the next day, the 6th of November.

With regard to the surroundings of the patient, the family kept a grocery store on the first floor, and lived on the second floor, occupying the whole of it. While they were not very clean people, the room in which the mother lay was kept very clean. They had a boy, seven years of age, who was in and out all the time, but he did not have diphtheria. They also had a daughter, sixteen years of age, who also showed no symptoms of diphtheria. All the adults in the house were healthy. The mother made a good recovery in the usual length of time. There was no affection of the vagina. Under the same roof was another family, but without children, and they had no diphtheria. In a rear house were three families, but there was no diphtheria, and had not been for some time. The midwife stated that she had not been with sick children, nor with sick women, for a long

time. The mother of the child had always shown great power to withstand disease and hardship. These facts seemed to show clearly that there had been no possible tangible source of diphtheritic contagion, and that there had been nothing in the surroundings of the child which could give rise to the disease. Dr. Jacobi laid special stress upon the fact that the mother showed no signs of diphtheria, or of any febrile disease. He had examined a part of the membrane from the child's mouth microscopically, and found it was diphtheritic.

Dr. WILLIAM H. WELCH, microscopist of Bellevue Hospital, to whom a specimen had been sent for examination, also pronounced the case one of diphtheria, and reported as follows:

"The specimen consists of a small shred of membrane preserved in Müller's fluid. It was examined by tearing out portions of the membrane. It consists of fibrin, pus, and epithelial cells, red blood corpuscles, and granular material. The fibrin is in part delicately fibrillated, in part in coarser bands and irregular shapes, which are usually referred to a fibrinous metamorphosis of epithelial and pus cells (coagulation-necrosis). The pus cells in places are abundant, and stain well with hæmatoxylin. The epithelial cells are flat, part with and part without nuclei. The red blood corpuscles are accumulated in patches, and are shrunken from the action of the fluid used in preserving. The granular material consists chiefly of bacteria, which can be readily stained in fuchsin. Some are round and in colonies (micrococci); others are rod-shaped. The structure is that of a diphtheritic membrane."

HENRY J. GARRIGUES, M. D.,

B. F. DAWSON, M. D.,

FRANK P. FOSTER, M. D., *ex-officio*.

Committee on Publication.

PATHOLOGICAL SOCIETY OF PHILADELPHIA.

A STATED meeting was held December 28, 1882, Dr. JAMES TYSON, President, in the Chair.

TUBERCULOSIS OF THE SPLEEN, LIVER, AND KIDNEYS.—Exhibited by Dr. SHAKESPEARE. These specimens were presented without a history of the case, and showed exuberant vegetations in pericarditis, abundant miliary tubercles of the pleura, of the liver, of the spleen, of the kidneys, and of the lymph glands in the region of the head of the pancreas. The subject came from the medical wards of the Philadelphia Hospital, and was last under your care, Mr. President, as visiting physician. They are brought to the notice of the society mainly because the autopsy was made this p. m., and because many of the members have not had opportunities of examining such perfect examples of extensive and diffuse tuberculous infiltration without more serious involvement of the parenchyma of the lungs.

Autopsy six hours after death of C. J., colored, aged sixty. Diagnosis: Pericarditis and pleuritic effusion, with strong bands of adhesions between parietal and visceral pleura. Thorax: Left pleural cavity completely obliterated by adhesions. Right pleural cavity contained a large amount of straw-colored serum. The lobes of this lung were compressed against the spinal column, and were atelectatic. The lower lobe was firmly adherent to the diaphragm, and the three lobes were strongly united by adhesions. The parietal pleura was thickened, and everywhere studded with minute gray semi-opaque miliary tubercles; the visceral pleura was in a similar condition, except that the tubercles were less numerous. The cut surface of the right lung presented nothing abnormal save absence of air, but the sense of touch showed beneath and near the pleura a few scattered minute points, much smaller than millet-seeds. The pleura of the left lung was also studded with numerous miliary tubercles, and the tissue of this lung was similar to that of the right. It was, however, crepi-

tant. The pericardial sac contained two and a half ounces of straw-colored serum. The whole heart was covered with an exuberant crop of vegetations. The cardiac walls were perhaps slightly softer than usual, otherwise normal. Abdomen: Peritonæum normal; no effusion. Liver: Slightly enlarged, with surface here and there raised by flat elevations, ranging in size from a hemp-seed to that of a hazel-nut; capsule normal. The nodules were firm, and of a yellowish tint; the intervening tissue was of a dark red. Deep section of the organ revealed similar nodules diffused through its substance, which seemed otherwise firm and normal. The spleen was slightly enlarged, firm, and extensively infiltrated with tubercles. The pancreas was normal, but the lymph glands near it were much enlarged, but neither softened nor caseous. No caseous focus was anywhere detected. The kidneys appeared normal, except for one or two more or less pyramidal yellow points. The case presents several points of interest. 1. Former history unknown. 2. Several aspirations, showing considerable pleuritic fluid. 3. What was the origin of the numerous tubercular eruptions, and, if there was auto-infection, what was its probable source?

Dr. TYSON then gave a *résumé* of the ante-mortem history,* saying that he regretted having to admit that he was less familiar with the history of the case than he should have been, since the patient was in his own wards in the Philadelphia Hospital. He had been previously thoroughly studied by Dr. Bruen, whose absence he regretted, as Dr. Bruen knew so much more about the case. The man had, however, been more than once tapped. He was a colored sailor, aged sixty years. When Dr. Tyson took charge of the ward in September, the man presented the physical signs of double pleuritic effusion, orthopnoea, feeble transmitted heart sounds, but no cardiac murmur. There was œdema of the legs. He was tapped with great benefit, and, under a restorative treatment, he rapidly improved, so that he soon became one of the walking cases in the ward, attracting little attention. About December 1st he became very much worse. The orthopnoea and other signs of accumulating fluids returned, and so did the œdema of the legs. His urine was repeatedly examined for albumen, with negative results. He was tapped upon the right side, and three pints of fluid removed, with but partial relief. The other side was also aspirated without success. A cardiac friction sound was noted, which seemed to be pleuro-pericardial, but, in the light of the autopsy, it was probably pericardial. He died on the 13th of December. With reference to the case cited by Dr. Formad, it had also seemed to be a simple plastic pleurisy, with feeble, distant heart sounds, with no murmurs, occurring in a case where, after prolonged illness, death resulted from exhaustion. Dr. Tyson had never seen such extensive new formations resulting from serous inflammation, the large lymphoid masses in the abdomen having at first suggested the idea of malignant disease. The patient had a distinctly scrofulous history. The father had died after pleurisy with cheesy deposits, followed by miliary tubercles of the lungs later in life. Four or five uncles and one aunt had all died phthisical, from between twenty to thirty years of age.

Dr. BARTHOLOW asked if the range of temperature accorded with that usually found in phthisical cases.

Dr. TYSON said that in the case related by Dr. Formad the temperature was seldom, if ever, above 101°, mostly below this point. In the case reported by Dr. Shakespeare, he was unacquainted with the temperature record.

Dr. NANOREDE demurred to the view that repeated tapping had any causative relation to the development of tubercle after

pleurisy, but thought that the chronicity of the affection and altered condition of the pleural sac, which demanded frequent operations, were the real explanations of the alleged fact.

Dr. MUSSEY said that a relationship between pleurisy and pulmonary tuberculosis could not be denied, but whether the pleurisy or the tuberculosis be antecedent was difficult of solution. That the former is primary may be inferred from the fact that persons are considered as threatened with phthisis who have subclavian arterial murmurs due to the pressure or pulling on the artery of organized lymph. Likewise are the various friction sounds and exocardial murmurs noted to precede tuberculosis, and especially to occur in those tuberculously predisposed. Examples of both cases have come under his observation. It seemed to him that a primary acute pleurisy was a rarity occurring in a non-tubercular subject. The last series of cases of what would be called primary pleurisy he had seen were in persons predisposed to tubercle, and in some of the cases tubercle subsequently developed. In short, so-called primary plastic pleurisy occurred only in tuberculously disposed individuals; other forms were secondary to some other process, as Bright's disease, septicæmia, etc. Trousseau called attention to latent pleurisies with effusion as being often an expression of a tuberculous diathesis, while also a latent pleurisy might occasion development of that diathesis. Two cases illustrating these views had lately come under his notice.

Dr. O'HARA said that, although he had not had much experience with latent pleurisy, he recalled a case of a young man, seen five years ago, where extensive effusion into one side of the chest had unsuspectedly occurred, and, when detected, had been removed by tapping. Apparent recovery then ensued, to be followed in a few weeks by a copious effusion into the other pleural cavity. Tapping was again resorted to, the effusion never recurred, and the patient remains healthy and free from tubercle at the present time. He would like to ask if, when the term "all the serous membranes were affected" was used, those of the brain were included.

Dr. TYSON replied that there had been no head symptoms in the sailor's case. In that mentioned by Dr. Formad, decided mental aberration, demanding watchful restraint, had been present. No inflammation of the meninges had been found, the only disease consisting of a small tubercle starting from the pia mater and dipping down into the brain substance.

Dr. SHAKESPEARE closed the debate by referring to the causes of tuberculosis in general, and its mode of diffusion through the organism. He called attention to the failure in discovering any caseous focus, while admitting the possibility of such, if minute, escaping the most painstaking search. In this and similar cases, all that could be safely said was that *the caseous point was not found*. Assuming, for illustration, that the point in the kidney might have been the origin of the auto-infection in this case, he referred to the communication between the left renal vein and the inferior mesenteric vein, and the direct communication with the portal system thus effected. As to the point raised by Dr. Mussey, he believed in plastic pleurisies distinct from tuberculosis. He had examined very many microscopic sections of pleuritic adhesions, and many had proved to be free from tubercle. Authors who have made original investigations on man and the lower animals have also as distinctly recognized a plastic pleurisy without tubercle as they have one associated with this formation. He thought tapping, in a person not predisposed to tubercle, was no more likely to produce this disease than tapping an anasarctous limb. He was well aware of the facts dwelt upon by Drs. Mussey and Formad, viz., the association of tapping with tuberculosis and of plastic pleurisy with tuberculosis, but he believed that the frequency of this association had been exaggerated. He thought, in view of the well-grounded belief that in certain classes of animals, as well

* Dr. Formad here related a case of general tuberculosis, and showed the specimen, but, no notes having been forwarded to the Recorder, any fuller account than the remarks of Dr. Tyson is impossible.

as in certain families of men, inflammation tends to linger, to produce accumulations, which are prone to degeneration, and to excite local or general tuberculosis, it is more logical to conclude that, in such cases as above mentioned, there is at the outset a tainted constitution, a soil already sown with the dormant seeds of disease waiting to be awakened to their active processes of destruction by the stimulation of an exciting cause. The more frequent the action of the exciting cause, the more certain is this dormant tendency to be aroused. [Dr. Shakespeare then proceeded to combat the views advocated by Dr. Formad in this debate; owing to their non-reception by the Recorder, Dr. Shakespeare's remarks are also of necessity omitted.]

TWO CASES OF CARCINOMA OF THE STOMACH.—Exhibited by J. H. MUSSER. CASE I.—*Scirrhus of the pylorus; general proliferation of the connective tissue; interstitial nephritis.* When the patient applied at the Medical Dispensary of the University Hospital, May 14, 1882, for treatment, malignant disease of the pylorus and of the lesser curvature of the stomach was diagnosed, on account of the physical signs especially, and of some points in the clinical history. Palpation and percussion revealed a firm, non-pulsatile, immovable, slightly painful tumor, about the size of a turkey-egg, in the middle of the epigastric region, one inch to the left of the median line. When lying down, the abdomen was slightly scaphoid, but the left upper quarter was distended. A curved line, extending downward from the umbilicus to the flanks, represented the lower limit of this swelling, which was soft and resistant, tympanitic on percussion, and, with care, could be discerned as starting from the hard tumor in the epigastrium. In short, it was due to a distended stomach. Although the tumor was not in the position of the pylorus, and although the patient had never vomited, yet pyloric disease was determined upon, because of the gastric distention. On account of the absence of marked obstruction, the position and the occurrence of pain in the lumbar region, disease of the lesser curvature and the posterior wall was decided upon. The autopsy revealed that the malignant growth surrounded the stomach at the pyloric end, but being greater in extent in the lesser curvature. An adhesion to the left lobe of the liver explained the position of the tumor. The patient first noticed the localization of the disease in November, 1881, by the occurrence of pain in the epigastrium following a jar. She noticed that her health had failed three months before, and that menstruation had ceased six months previous to the epigastric pain. Note here the failure of health before any local evidences of disease, not even dyspeptic symptoms. She was a widow, aged forty years, with one child; her health had always been very good, her circumstances moderate, and her habits exemplary. In addition to a constant burning pain, increased by food, her appetite was poor; tongue pale, with enlarged papillæ; flatulency was marked, and the bowels constipated. She presented a sallow, cachectic appearance, was somewhat emaciated, extremely anæmic, with cardiac, arterial, and venous blood murmurs, and accentuated second sound. She was under observation until her death, October 17, 1882. The pain and constipation were relieved by treatment, but the course was only downward. In addition, I may note that the cachexia became more marked, and the classical appearance of the face was wonderfully depicted—transverse and vertical lines on the forehead, semicircular lines around the mouth from the alæ of the nose to the chin, and vertical lines on the chin and lower lip. The hue of the countenance changed, growing darker and darker. This peculiar hue of the face Dr. Musser considered the most reliable symptom of approaching dissolution. It was noted one month before death. During the last two months of her illness she suffered much from soreness of the mouth and tongue, without visible lesions; from burning in the fauces, difficulty of

deglutition, acidity, vomiting taking place every third or fourth day of a clear acid fluid, coagulated milk bile-stained, and "coffee-ground material." A painless watery diarrhœa occurred frequently, with tarry masses. Œdema of the feet and ankles took place six weeks before death. The tumor grew in size, and changed position, falling downward. Three days before death it was noted to pulsate, was tender, and was three inches long, extending from the median line to the left, on a level with the umbilicus.

Autopsy twelve hours after death: Extreme emaciation; rigor mortis marked; œdema of feet; heart slightly enlarged, the left ventricle walls 8.75 lines in thickness; heart weighed 7 ounces. Aorta, 1 inch 1.75 lines in diameter, and slightly atheromatous. Deposits of fat along the septum were noted, and the muscular tissue itself was fatty. The stomach was in the position defined a few days before death, was greatly dilated, with the disease at the pyloric end extending along the lesser curvature four, along the greater curvature two inches, and completely encircling the organ. The stomach walls became thickened with much hypertrophied muscular coat as they approached the diseased area. The internal surface of the tumor was flat, elliptical, and defined by an everted lip of varying thickness about four lines high. The surface was uneven, some nodules being half an inch thick. The most central portion presented distinct evidences of ulceration. The liver was rather larger than normal, seemed fatty, and was not indurated. The kidneys were small, hard, and the capsule peeled off with difficulty. Microscopic examination of the stomach, liver, and kidneys, Dr. W. E. Hughes assisting, showed abundant irregularly shaped epithelial cells packed closely in a fibrous stroma, but slightly developed in and containing numerous nuclei. Liver-cells, fatty and pigmented. Proliferation of the connective tissue around the hepatic and portal veins was noted, many nuclei proving its recent origin. The kidney was markedly cirrhotic, the connective tissue being not of recent formation. Note the general proliferation of connective tissue in the organs. No albumin was detected during life in the urine, nor were any renal symptoms noted, yet there was undoubted interstitial nephritis belonging to the variety described by Gull, Sutton, and Mahomed. The mal-assimilation consequent upon the gastric lesion was the predisposing factor in the production of this general change.

CASE II.—*Scirrhus of the pylorus; symptoms simulating idiopathic anæmia.* F. R., aged fifty-four, white, German. Resident of a healthy locality, but much exposed as lumberman during the winter. Addicted to constant use of spirits, malt liquors, and tobacco. Had a fever of six weeks' duration at the age of sixteen years, and eight years ago some pulmonary inflammation. Never had malaria or syphilis. Does not know cause of mother's death; seven brothers and sisters, healthy; father died of old age; his own three children living and healthy. Admitted to University Hospital, December 20, 1878. During the previous winter had numerous gastric attacks, as shown by pain and loss of appetite. In the spring and summer he lost flesh and strength, and was subject to pain in the bowels and in the hepatic area, flatulence, pyrosis, and constipation, but never vomiting. On account of salivation, in June he became especially debilitated. At time of admission, weight 118 pounds; usual weight, 170. Liad on left side, perfectly apathetic, with the physical and mental processes slow of action. Extremities cold, very anæmic, conjunctiva and mucous membrane very pale; sclerotics pearly white; complexion, of a sallow, dirty hue. Palpitation of the heart, dyspnoea, and subjective ear-noises were noted; temperature irregular, appetite poor, flatulence and pyrosis; pain and tenderness in epigastrium; no definable tumor, but a sense of induration. Hepatic and splenic

areas of dullness normal. No venous hum. Heart sounds weak. Urine, sp. gr. 1.018, neutral reaction, albumin one sixth. No casts, bile or sugar. Phosphates, not in excess. Blood, white corpuscles in excess; red, greatly decreased in number. Ophthalmoscopic examination: Slight retinitis; O. D. pallid; central artery dilated. Venous blood paler than usual. Absorption of choroidal epithelium, allowing choroidal circulation to be seen. Macula healthy; no hæmorrhage throughout fundus. Both eyes present the same appearances. A low typhoid state soon developed, with diarrhœa and excessive flatulence. For three days prior to death, vomiting occurred. He died December 30, 1882. Autopsy: Stomach alone examined. It is to be regretted that the full record was lost. Stomach adherent to liver and transverse colon. Lesser curvature, from pylorus half way to cardiac orifice, infiltrated with cancer, extending two inches over the anterior wall, and at the pylorus encircling the organ. Pancreatic and biliary ducts pervious. Microscopically, the growth was found to be scirrhus carcinoma.

Remarks.—On account of the profound anæmia and the absence of tumor and vomiting, idiopathic anæmia was considered. The examination of the blood and the condition of the eye-ground contraindicated such a diagnosis. The normal size of the liver and spleen and the non-glandular involvement excluded leucocythæmia. It is to be regretted that the exact numerical blood count was not recorded. In this case the lesser curvature was very much involved, and a distinct tumor was absent; quite the opposite of Case I.

TUMOR OF THE BRAIN.—Presented by Dr. A. P. BRUBAKER, for Dr. H. LEAMAN. John Jones, aged fifty-three, laborer. When first seen, the patient was lying on his back, with head drawn backward into the pillow, and complaining of stiffness and soreness in back of the neck. The mouth was widely opened and parched, and the breathing deep and heavy. He was in a semi-unconscious condition, from which, however, he could easily be aroused, but soon relapsed into his former state, which was attended by stertorous breathing. Speech and deglutition were both interfered with, but not abolished. There was involuntary passage of urine, but the bowels were constipated. Venereal ideas were excessive, but accompanied by complete impotence. Voluntary movements of the extremities, and also the power of co-ordination, were considerably impaired. Pulse and temperature were normal. Liquid food was taken with difficulty. His condition had been as described four days previous to my first visit on September 4, 1882. The symptoms gradually increased, and coma supervened, which ended in death, September 17, 1882. The following history was obtained from the family: Twenty-six years ago the patient was confined to bed with "nervousness" for a period of two years, when he passed a calculus about the size of a date-seed; again, a month later, another smaller one was passed. His bladder continued to give him more or less trouble up to death. He had his clavicle broken nineteen years ago, but there was no injury to the head. About sixteen years ago he was suddenly seized, while at work, with a severe headache, and became totally blind, which lasted for twenty-four hours. This was relieved by wet cups to back of the neck. From that time he was subject to what they called "shaking spells." When standing there would be a violent trembling of the knees and shaking of the arms. These attacks occurred about once a month, and occasionally three or four times a day. They increased from year to year in frequency and severity, and appeared to be excited by high winds and storms. In February, 1882, he was seized with paralysis, beginning in the left little finger, thence gradually extending to the ring and middle fingers, until the hand became powerless, but was able to move his arm. Then followed a numbness in the outer side of the left side, attended by impairment of the power

of co-ordination, so that, on attempting to walk, he was compelled to run to keep from falling. He frequently fell in the street, and had to be carried home. Last February loss of speech supervened, which lasted for one month; the patient then began to speak in monosyllables, after which speech gradually returned. Autopsy: Congestion of the entire brain. On removing it, four or five ounces of serum ran from the cranial cavity. Brain substance seemed to be normal throughout. In the right fissure of Sylvius was embedded a tumor about an inch and a half in diameter, which was almost entirely concealed from view by the convolutions. It rested upon the convolutions of the island of Reil, completely disorganizing them. The inferior extremities of the ascending frontal and parietal convolutions were normal. The upper surface of the temporo-sphenoidal lobe was somewhat disorganized. The tumor apparently sprang from the pia mater.

Report of the Committee on Morbid Growths.—A section made from the tumor, presented by Dr. Brubaker, and examined microscopically, showed that the growth was tubercular. Its histological structure is seen to consist of fibrous tissue constituting a reticulum, the meshes of which are filled with lymphoid cells. These appearances are very distinct at the peripheral zone of the tumor, while the center and inner zone are in a state of retrograde metamorphosis, presenting a very granular appearance, scarcely stained by the carmine. The blood-vessels are mostly obliterated, their lumen being filled with coagulated blood or granular debris. December 28, 1882.

ENLARGED LYMPHATIC GLANDS.—Exhibited by Dr. W. H. PARRISH, who showed five lymphatic glands removed from the axilla of a patient whose breast he amputated about nine months ago. The case was then reported at the Obstetrical Society, and was published in the "Medical News" of July 8, 1882. The specimen was referred to a committee, and Dr. Beates made a microscopical examination, and concluded that the growth was an adenoma that had undergone carcinomatous change. Of the enlarged glands presented, three, about the size of an almond, were removed from the axilla; a fourth, of smaller size, from just below the clavicle, and the fifth from the side of the neck, about an inch from the clavicle. The patient presented no cachexia. The specimens were referred to the Committee on Morbid Growths.

POLYPI FROM THE UTERINE CERVIX.—Exhibited by Dr. W. H. PARRISH, who also presented two small growths, each about the size of the last phalanx of the thumb, removed that day with a wire écraseur. On Christmas eve he saw for the first time a patient of French birth, a teacher, apparently about thirty-five years old. When he entered her room she was in a state of syncope from hæmorrhage from the genitals. The hæmorrhage had, however, ceased. With the application of hot wet cloths over the front of the chest, and by hypodermic injections of whisky and aromatic spirits of ammonia, she in a few minutes revived, so as to be able to tell him that she had not menstruated for three months, when suddenly bleeding began from the womb and continued during the day, with an exacerbation just before sending for him. As the patient's condition was evidently a critical one, he asked the direct question if she had not had, or was not having, an abortion. She said it was impossible. He then learned that she was single, and forty-two years old. A digital examination showed an intact hymen, and a substance in the vagina that at first touch felt very like an embryo of about three months. But he soon recognized that it was a growth attached to the lower part of the cervical canal, and that there was another distending the cervical canal. The latter felt still more like an embryo or ovum, and, in fact, in the absence of the one in the vagina, might have at first misled him into thinking that the patient was aborting. Slight traction on it soon showed

that it was attached. There was no return of the bleeding, and that day, with the assistance of Dr. M. O'Hara, he removed both the growths with the wire, and without etherization or the use of a speculum. A remarkable feature of the patient's history was that she had always menstruated scantily, and at intervals of five or six weeks. Never before had she evinced a tendency to uterine hæmorrhage. He was confident that the patient was not pregnant. He presumed that, being virginal, she was approaching the menopause.

C. B. NANCREDE, M.D., *Recorder.*

Reports on the Progress of Medicine.

QUARTERLY REPORT ON MATERIA MEDICA, THERAPEUTICS, AND TOXICOLOGY.

No. XII.

By GASPAR GRISWOLD, M.D.

CONVALLARIA MAJALIS.—Dr. Berthold Stiller ("Wien. med. Woch.," Nov. 4, 11, 18, 1882) reports the results of treating twenty-one cases of heart disease with convallaria majalis. He employed the drug in the form of infusion, after the Russian fashion, and has never observed the vomiting or diarrhœa which has been alluded to by some writers on the subject; the taste is bitter, but infinitely less objectionable than that of digitalis. The author observed the precaution of not giving the drug as soon as patients were admitted to the hospital, for the reason that some benefit is always derived at that time from diet and rest in bed, and this improvement might easily be mistaken for good effects from the drug. Taking the greatest care to eliminate all sources of error, the author is able to state positively that in seventeen of his twenty-one cases the drug had no effect whatever upon the frequency or regularity of the heart's action, the respiration, the quantity of urine, the dropsy, or the subjective symptoms of the patients. In nine of these cases digitalis subsequently gave most satisfactory results. In four cases the convallaria produced an effect. In two of these it produced some diuresis, which was not, however, great in degree or sustained during the continuance of treatment. One of these two cases was subsequently much benefited by digitalis. In the two remaining cases the convallaria seemed to have a favorable influence upon the action of the heart, but the result was not striking. Altogether, the author finds himself unable to indorse the enthusiastic praises of the French and Russian physicians. He suggests, as an explanation of the difference between his own results and the more favorable experiences of other investigators, that the convallaria used by him may not compare favorably with that used in more successful cases. He alludes to the superiority of wild digitalis over the garden variety, and suspects that a somewhat similar difference may exist between different kinds of convallaria. He proposes, in further experiments, to employ the French drug. The twenty-one cases of heart disease treated by the author included four cases of mitral and aortic regurgitation, one case of simple mitral regurgitation, five cases of mitral stenosis with regurgitation, four cases of mitral stenosis, five cases of weak heart, with dilatation of the left ventricle, and two cases of exophthalmic goitre. The cases, therefore, represented nearly every variety of heart disease, and the collection presented a fair test of the convallaria majalis.

POISONING WITH CHLORATE OF POTASSIUM.—Dr. E. Zillner (*ibid.*, Nov. 11, 1882) reports an interesting case of poisoning

by chlorate of potassium, with a post-mortem examination conducted by Professor E. Hofmann; following the report are some general comments on the condition of poisoning by chlorate of potassium, its *modus operandi*, etc. The patient was a strong workman of thirty-one years, who applied to a physician to get a prescription for an attack of sore throat from which he was suffering. The physician gave him twenty grammes (3 v) of chlorate of potassium in powder, with the directions to dissolve a small quantity ("as much as would be raised on the point of a penknife") in a glass of water, and use it as a gargle at short intervals. The next day the patient reported himself better. On the third day he was attacked with convulsions at about four in the afternoon; a physician was called, but made a diagnosis of epilepsy, and did not employ any treatment. The patient died soon afterward. An autopsy was made by Professor E. Hofmann, at the instigation of the Sanitary Commissioners, to investigate the cause of death. On examination, a peculiar grayish color of the skin was observed; this same grayish tinge was present over the mucous and serous surfaces as well. The blood in the veins and that which oozed out upon the cut surfaces of the different viscera was of a peculiar brown color, variously described as resembling tobacco, chocolate, or coffee. The bladder contained about eighteen ounces of urine, which was albuminous, but did not contain blood or casts. The viscera generally were normal, with the exception of the brownish look imparted to them by the altered blood in the vessels. The author dwells upon the grayish tinge of the tegumentary surfaces and the chocolate-brown of the blood as especially characteristic; indeed, Professor Hofmann considered the appearance of the skin alone to be pathognomonic of chlorate of potassium poisoning, and, although ignorant of the history of the case, at once suggested the diagnosis when first shown the body. The author further says that chlorate of potassium acts like a number of other substances which, in the presence of organic bodies, give off oxygen; this action is very marked; for instance, in the case of permanganate of potassium. Two changes result in the blood—one chemical, the other morphological. In the former the hæmoglobin is changed into an oxidation product called methæmoglobin; it is this which gives the altered blood its chocolate hue. The latter process consists in a deformation and disintegration of the red blood-corpuscles, which is easily appreciable with the microscope. As a result of these changes, the blood can no longer carry oxygen, and parenchymatous changes are produced in the viscera. The kidneys suffer especially, and the urine becomes albuminous and contains casts of pigmentary substance from the altered blood, as well as epithelial casts. Suppression of urine commonly occurs before death. In the case described in this paper the patient died early—before parenchymatous changes had progressed very far; therefore, no casts were found in the urine, although it had become albuminous. The blood changes were characteristic, as has been said. In the patient's possession was found a paper containing still eight and a quarter grammes (3 ij, gr. iv) of chlorate of potassium; he had, therefore, not used more than eleven and three quarters grammes (3 iij, about). The supposition is that he had swallowed most of this instead of gargling with it, and had died of poisoning at the end of about forty-eight hours from the commencement of treatment.

[For the past few years the German journals have been full of cases of chlorate-of-potassium poisoning. In some of these cases the quantity taken has seemed very small from an American point of view. For instance, in the present case three drachms, taken in very small quantities, well diluted, and the administration spread out over a period of forty-eight hours, is taken as a possible cause of sudden death from convulsions in a vigorous adult! The author even takes the case as a typical

one, and comments on it as if the facts were established beyond dispute, and the quantity of chlorate of potassium quite adequate to produce such effects! On consulting the history of chlorate of potassium, we find that Dr. Fountain, in 1861, took at one dose an ounce of chlorate of potassium, to prove the harmlessness of the drug, but died with suppression of urine on the seventh day. The drug in this case was not much diluted, and produced considerable *gastro-enteritis*. Dr. Tully took an ounce of chlorate of potassium at a dose on several occasions, without injury, only observing the precaution of diluting it very freely. Isambert, throughout a long series of experiments on himself, took daily from two to five drachms of chlorate of potassium; he observed, as effects, salivation, diuresis, and gastric irritation, if the drug were not well diluted. Certainly most people who take chlorate of potassium lozenges on their own responsibility consume as much as a drachm to a drachm and a half in twenty-four hours. The patient who is described in the "Wiener med. Wochenschrift" took only three drachms in all, well diluted, and died suddenly in convulsions, without suppression of urine, the bladder containing eighteen ounces at the autopsy. Since the mode of death was so unlike what has usually been observed in cases of chlorate-of-potassium poisoning, and since the quantity taken was no greater than has frequently been administered without causing any untoward symptoms, it becomes a very difficult matter to be sure that death was really due to chlorate of potassium. The author speaks very confidently of the action of chlorate of potassium in causing super-oxidation of the blood by giving up its oxygen in the circulation. The salt is eliminated, unchanged in the urine as long as forty-eight hours after a moderate dose has been taken, and good authorities state that there are no grounds for believing that it can give up its oxygen at the temperature of the body. Years ago Dr. Stevens, Dr. O'Shaughnessy, Sir James Y. Simpson, and other prominent authorities, used to prescribe chlorate of potassium in all cases of dyspnoea, whether from cardiac or pulmonary disease, with the belief that it gave up its oxygen in the blood; anæmic mothers used to take it in large doses during utero-gestation to prevent death of the fœtus from asphyxia. Then came a day when chemists proved that chlorate of potassium could not yield its oxygen at the temperature of the body, and that the whole quantity administered could be recovered unchanged from the tears, saliva, perspiration, urine, and feces. Most physicians in this country have been convinced by these arguments, and chlorate of potassium is scarcely ever given here now with the idea that it will assist the oxygenation of the blood. Lately the Germans have returned to the former opinion, and their journals contain frequent positive assertions that chlorate of potassium *does* give up its oxygen in the circulation; strangely enough, however, this is no longer regarded as favorable, or spoken of as assisting the respiratory process. Instead of believing, as formerly, that free oxygen in the blood relieves dyspnoea and supplements physiological processes, they now describe it as changing hæmoglobin into met-hæmoglobin, disintegrating the red corpuscles, and producing widespread parenchymatous degenerations! Certainly new experiments are needed to rescue a household remedy from such a confusion of theories.]

THE INFLUENCE OF IODOFORM ON THE MIGRATION OF WHITE BLOOD-CORPUSCLES.—Dr. C. Binz ("Arch. f. path. Anat. u. Physiol. u. f. klin. Med.," lxxxix, 3, 1882) alludes to two different theories. According to one theory, the vessel-wall is first weakened by the inflammatory process; the increased blood-pressure then forces white cells through the degenerated vessel-wall. According to this theory, the proper treatment for suppuration would be merely to diminish the force of the heart and lower arterial tension, thereby diminishing the blood-pressure which was causing the cells to pass through the vessel-wall.

The other theory attributed the migration of white cells to their amœboid movements, and did not take account of blood-pressure in the process. This latter theory is preferred by Dr. Binz, and he believes that suppuration should be treated with remedies which restrain the movements of the white cells. These remedies act in two ways—viz., internally and externally. Quinine is the type of the former class, and, when administered in full doses, controls the amœboid movements of the leucocytes, and prevents their migration from the vessels. Eucalyptol, salicylic acid, and iodoform are good examples of drugs which can restrain the amœboid movements of the white corpuscles in areas to which they have been locally applied. The author then gives details of some experiments upon the influence of iodoform upon white-cell activity, the frog's mesentery being selected as the tissue to be experimented upon. It was observed that, in the presence of iodoform, the white cells which collected in the capillaries at the point where irritation was applied did not change their shape or undergo amœboid movement, but remained spheroidal and passive, and could not pass through the wall of the vessel. This effect was observed to be more positive when sunlight had access to the prepared tissue. This is explained by the author on the hypothesis that under the sun's influence a vapor of iodine is evolved from the iodoform, which renders the influence of the latter more active. The author further believes that the power of iodoform to restrain suppuration, by preventing the amœboid activity of the white cells, is another proof that the emigration of these cells is a result of their own activity, and not of increased blood-pressure.

PHARYNGEAL TUBERCULOSIS CURED WITH IODOFORM.—M. Gouguenheim ("Union méd.," Nov. 4, 1882) reports a case of miliary tuberculosis of the pharynx cured with applications of iodoform. A patient who had suffered with sore throat for six months applied for treatment. She was a young woman of twenty-five years—pregnant at the time. Her throat was found to be the seat of a destructive ulceration, involving the pharynx, both pillars of the fauces, and the posterior surface of the soft palate. The uvula was much swollen, and was removed by the author. It was found extensively infiltrated with miliary tubercles, and presenting numerous points of caseous degeneration. The throat was treated with local applications of iodoform, dissolved in ether, and improvement set in at once. In two weeks the ulcers had nearly healed, and in a month convalescence was completed. About this time a swelling appeared upon one of the pillars of the fauces. To this iodoform was applied, as before, but without effect. It steadily increased in size, and finally ulcerated, discharging quantities of cheesy matter. No sooner had the process of ulceration exposed the tuberculous deposit to the direct action of the iodoform than the curative action of the latter began at once to manifest itself. The ulcer rapidly healed, as the previous ones had done, and recovery was brought about in a few days. From this case the author draws the conclusions: 1. That local tubercular processes are curable by the direct application of iodoform. 2. That submucous infiltrations of tubercle are not much affected by applications of iodoform until ulceration has laid bare the deposit, and exposed it to the direct influence of the drug.

VIBURNUM PRUNIFOLIUM.—Dr. O. E. Herrick ("Obstet. Gaz.," Oct., 1882) states that he has observed toxic symptoms in cases in which viburnum was being taken in considerable doses. He reports several cases of uterine disease which were being treated with viburnum prunifolium, given in the usual way, when the patients began to complain of dizziness, dimness of vision, dryness of the mouth, and occasional staggering like that observed in locomotor ataxia. These symptoms disappeared at once when the medicine was stopped, and reappeared when its administration was resumed in the same doses. The author admits that

he was in the habit of referring these symptoms to the uterine conditions which he was treating. He considers it very important that physicians generally should be on the lookout to properly interpret symptoms which present themselves in cases which are being treated with *viburnum prunifolium*.

STRYCHNINE.—Dr. J. A. McCorkle ("Proc. of the Med. Soc. of the County of Kings," Dec., 1882) calls attention to a fact often overlooked, namely, that stimulants like strychnine, used very long or in very large doses, ultimately have a depressing influence and exaggerate the conditions for which they were originally prescribed. The author suggests that physicians should be careful that their patients do not continue a tonic too long. Such medicines should be given in such doses as are calculated to raise the depressed functions to a normal standard; as soon as the physiological condition is approached, the dose of the tonic should be gradually diminished, and finally stopped altogether when health is restored. The too-long-continued administration of a tonic like strychnine depresses the nervous system just as over-stimulation of a nerve by electricity exhausts irritability. In the same way a bitter tonic may have relieved indigestion by stimulating the vascularity of the gastric mucous membrane; but the same tonic, given too long, may produce gastric catarrh, and bring on disturbances of digestion worse than those which had been originally relieved through its use. Strychnine has been advocated as a respiratory stimulant by Fothergill; it is believed that, if used too long, it may depress respiration and interfere with the oxidation of sugar in the lungs to such an extent that temporary glycosuria may result. In support of this, cases are on record where sugar has been observed in the urine of those who had been taking nuxvomica for a considerable period. The author believes that strychnine, in combination with phosphoric acid, is the best respiratory stimulant we have, but that it may do great harm if continued too long. He also believes that it has decided curative powers in diabetes mellitus, but that this disease is still too little understood to permit of our using strychnine in the treatment of it; for we can not decide when we are doing good and when we are doing harm.

QUASSIN.—M. Campardon ("Bull. gén. de thérap.," Nov. 15, 1882) was induced to undertake a series of observations upon quassin, because he found it difficult to induce patients to take such large doses of the infusion or tincture of quassia as he believes are necessary in order to obtain the full tonic effects of the drug. There are two varieties of quassin in the market—the amorphous and the crystalline. Their physiological actions seem identical, but the crystalline form is ten times as powerful; they are both soluble in alcohol, and the color of the solution is not changed by the addition of strong nitric acid. This last fact is useful in detecting adulterations. The author administers quassin in the form of pill; the dose of the amorphous is from twenty-five milligrammes (about one third of a grain) to fifty milligrammes (about three quarters of a grain). The dose of the crystalline form is one tenth as much. Quassin should be given before meals, three times daily. It increases the appetite, and stimulates the nervous system generally; the energy is increased, and capability for work is augmented. If constipation has been present, the bowels act more freely; on the other hand, in diarrhoeas due to relaxation and intestinal indigestion, the passages diminish in frequency and become normal in quality. The urine is increased in quantity, and the expulsive force of the bladder is improved. The action of the heart, the uterus, and the secretion of milk seem not to be materially affected by quassin in medicinal doses. When a large dose is administered—three or four times the ordinary quantity—toxic symptoms make their appearance. The patient experiences a sense of burning and constriction along the whole extent of the digestive

tract; vertigo is complained of, and cramps of muscles may occur. In some cases vomiting and diarrhoea are observed; the urine is passed frequently, and in small quantities, but without pain or burning sensation. The author recommends quassin as an efficient and powerful tonic. His conclusions are based upon experiences in eighty cases, and he states that his results were eminently satisfactory in all but six. In these six cases the expected improvements, for some unknown reason, did not follow the administration of the medicine.

INJECTIONS OF NITRATE OF SILVER FOR CHRONIC DYSENTERY.—Dr. George E. Post ("Lancet," Dec. 2, 1882) reports a case of severe chronic dysentery cured by large injections of nitrate-of-silver solution. The patient, a delicate lady of thirty years, had suffered continually for five months from tenesmus and dysenteric passages following every exertion. Her appetite was lost, and she was much emaciated. At the time when treatment was commenced she was having six or seven stools daily. The first injection consisted of one pint of water containing fifteen grains of nitrate of silver. The second injection was given on the fourth day of treatment, and amounted to two pints of the same solution. Neither was retained more than a minute, on account of the irritability of the rectum. Improvement, general and local, set in at once after the first injection; the appetite improved, and the dejections assumed a more normal appearance. Only the two injections mentioned were administered, the patient being well on the eighth and ninth days. By the fifteenth day she could walk considerable distances without bringing on any diarrhoea.

EUCALYPTUS ROSTRATA FOR DIARRHOEA.—Dr. T. J. Hudson (*ibid.*, Dec. 16, 1882) calls attention to the efficiency of eucalyptus rostrata as a remedy in various forms of diarrhoea. The drug is not new, but receives only cursory mention in the textbooks; the marked success of its administration by the author in two hundred cases of diarrhoea last summer convinced him that it deserved to be more prominently brought forward. Eucalyptus rostrata, or Australian red gum, occurs as imported in dark-red, hard masses; its essential principle is tannic acid. The best form to administer it in is the decoction, made by boiling one ounce of the powdered gum in forty ounces of distilled water for about ten minutes, and filtering while hot. A stronger decoction is made for very acute cases, one ounce of the gum being dissolved in twenty ounces of water. Either of these decoctions may be given in half-ounce doses every two hours, the stronger being used in cases where there is a tendency to profuse watery discharges. Where there is much flatulence, a little laudanum may be combined with advantage. The author much prefers the eucalyptus rostrata to the other tannic acid compounds, especially in chronic watery fluxes.

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- BRUNTON, T. L., and CASH, T.—On the action of ammonia and its salts, and of hydrocyanic acid, upon muscle and nerve. "Proc. of the Roy. Soc.," xxxii, 214.
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- RINGER, S., and SAINSBURY, H.—On the action of the salts of sodium, ammonium, and potassium. "Lancet," Nov. 4, 1882.
- TESTA, B.—Azione dell' esculina sulla sensibilità. "Giorn. Internaz. delle Sci. Med.," iv, 5-6, 1882.
- WOOD, H. C.—Notes upon lily of the valley. "Phila. Med. Times," Nov. 18, 1882.

Letters to the Editor.

THE QUESTION OF THE CODES.

614 FIFTH AVENUE, NEW YORK, March 3, 1883.

To the Editor of the New York Medical Journal:

SIR: Together with probably many others, I am disappointed at the incompleteness of the action taken this year by the State Society in regard to medical ethics. In the preceding year, three codes had been under discussion before the society, viz.: 1, The old code, which is that of the American Medical Association; 2, the new code, which is now known as the New York State Code; and 3, the Ethical Declaration and Resolution proposed by Dr. Roosa. While the new code was still a committee report, Dr. Roosa's resolution had been substituted for it; but it was put to vote by the erroneous parliamentary ruling of the then president of the society, and was thereupon adopted. I had been led to believe that Dr. Roosa's resolution would this year be brought up for discussion, and it was with this understanding that I, with many others, voted against the attempt which was made, by those who desired to re-enact the code of the American Medical Association, to repeal the action of 1882. But the consideration of Dr. Roosa's resolution was postponed for twelve months.

I can not agree with those who hold that the code of the American Medical Association needed no other change than that certain consultations which are therein prohibited should be permitted. I am of your opinion, Mr. Editor, that the whole code should be revised; that it is, indeed, an inconsistency that a physician should be debarred from holding a patent while at the same time there is no prohibition against his holding a copyright, etc. The mistake has been made by the friends of Dr. Roosa's resolution of allowing it to be called "no code." This has arrayed against it all those who believe in the advisability of having a Code of Conduct according to which members of a particular organization can be disciplined. In point of fact, the adoption of Dr. Roosa's resolution would enable the society to hold members to a strict account for acts contrary to the spirit of medical ethics which are now practiced without redress. I propose that this declaration and resolution be known, in contradistinction to both the old and new codes, as the medical *Gentleman's Code*—a name which certainly properly designates it, as according to its provisions the society *claims and promises to exercise the right of discipline for all conduct unworthy a physician and a gentleman*. This code will enable each society to keep its members up to its own moral and ethical standard; and it is well known that that standard varies in different localities.

During the discussion before the State Medical Society, several of the members seemed greatly troubled as to what they should do in the seeming conflict between the old and new codes. The Gentleman's Code should have taught them that, so long as they are voluntarily members of the American Medical Association, they are bound by the Code of Ethics of that Association, no matter to what other societies

they may belong which loosen restraints. If dissatisfied with that code, a gentleman may endeavor to have it changed by the association, but will certainly not violate it unless he has first resigned from the association.

Very respectfully,

LOUIS ELSBERG.

SMALL AND FREQUENT DOSES.

FORT EDWARD, N. Y., February 27, 1883.

To the Editor of the New York Medical Journal:

SIR: Each generation, in a stable state of society, is wiser than its predecessor, from the merely cumulative results of experience, transmitted in the wealth of books and teaching. But, when a new line of thought or a new principle is discovered, it does not commonly become popular or prevalent with the generation that saw its birth. Two or three generations ago the rules for the amount and method of dosing would appall a doctor of to-day. And he would be obliged to allow that, in many cases at least, to die without drugs was the preferable way. This generation is gradually witnessing a change of sentiment, that is all but universal, and it requires no prophet to see that it will be in the next the dominant idea.

Professor A. A. Smith, in the February 10th number of this journal, has struck the key-note of this change in his lecture on "The Frequent Repetition of Doses." But he has also struck a profounder chord, and one that prevails to a much wider extent than might at first appear on the surface.

Let us quote the first instance: "Urticaria is often caused by the administration of *full doses* of balsam of copaiba . . . a single drop of the same drug given every half-hour will sometimes control urticaria." And he adds: "I have no explanation to offer, but I make the statement not alone upon the authority of others; I myself have often observed the efficacy of the treatment."

Again I will quote: "Fowler's solution—half a drop given every half-hour for six or eight doses—will often relieve the vomiting which occurs after a debauch. It will also relieve the morning vomiting of drunkards, and is of decided benefit in the sympathetic nausea and vomiting of pregnancy."

Is there any one who doubts that arsenic in larger doses will produce vomiting very like the vomiting described?

"The next preparation of which I shall speak is a solution of the sulphate of atropine, one one hundredth of a grain in a goblet of water, a teaspoonful of which shall constitute a dose. Now, you will often be called to see cases of supposed croup, but which will, in the majority of instances, prove to be false croup of a reflex origin. Ordinarily you will be able to relieve these patients by giving them teaspoonful doses every hour, or half-hour, according to the severity of the attack. If the child's face begins to flush, and *show signs of the physiological effects of the drug*" (the italics are my own), "the dose can be reduced in frequency."

Biddle's "Materia Medica" says: "In larger doses it ('Belladonna, the narcotic properties of which depend on atropia') causes constriction of the throat, difficulty of deglutition and articulation, increased heart-action, quickened respiration, elevation of temperature, marked diuresis, nausea, etc." Is not a very large part of this the picture of that same spasmodic croup? If it is not, then I have yet to meet with that complaint.

Again let me quote *verbatim* (omitting only for the sake of brevity), for I could find no better illustrations than those Professor Smith has given: "One of the most important remedies which can be administered with great benefit in frequently repeated doses is ipecac. You are aware that a teaspoonful of the syrup of ipecac is likely to produce emesis; but it is also a fact . . . that a single drop of the wine of ipecac will often arrest obstinate vomiting. It should be repeated every ten or fifteen minutes. . . . A single drop of the wine of ipecac, repeated every fifteen or twenty minutes, will often produce the most marked relief, both from the vomiting and diarrhoea," of children suffering from this disturbance of digestion (see the former part of the statement). It is a fact well known to all practitioners who have given ipecac in large doses that it does not only produce vomiting, as stated by Professor Smith, but also diarrhoea, especially in

some cases where it fails to produce emesis, and acts as a nauseant and finally as a cathartic.

"I have administered one-fortieth-grain doses of calomel every hour for ten or twelve hours . . . and relieved the headache of syphilis occurring at night. The relief was very marked the second night." It is also a well-known fact that those who have been poisoned by working with mercury are very subject to headache, and that this is as a rule worse at night.

"Nursing children often regurgitate their food. This has been relieved repeatedly in my experience by giving them a teaspoonful of a solution of one grain of calomel to a pint of water, repeated every fifteen minutes."

Both mercury and calomel produce vomiting when given in large doses, or vomiting and diarrhœa may be the result.

"In infantile diarrhœa very minute doses of calomel, as one sixteenth, one twelfth, one eighth grain, every hour or two, are highly efficacious." So says Biddle.

It seems that Dr. Smith has found that one one hundred and twenty-eighth of a grain, given in the same way, has "repeatedly relieved" the same symptoms. The question suggests itself: Might not one sixtieth or even one one hundredth grain of calomel be efficient in syphilitic nocturnal headache? Testing this is better than all the arguing against it or for it, though Professor Smith has thus far failed to try it.

Again: "Where the diarrhœa is accompanied by mucous passages, indicative of a certain degree of inflammatory action, or enteritis, benefit will be derived by the administration of one teaspoonful every hour of a solution of one grain of bichloride of mercury to one quart of water." This is about one two hundred and fifty-sixth of a grain. And he adds: "The full dose for a child is reached in a few hours."

Biddle says of corrosive sublimate: "It acts very rapidly, producing the most intense gastro-enteritis, with violent vomiting and purging, abdominal pain and tenderness, bloody stools, with death from collapse."

We are assured, in the next place, that one two hundred and fifty-sixth of a grain of tartar emetic, given in solution every half hour, "will prove effectual for the relief of the wheezing and cough accompanying a slight bronchitis in children."

Biddle says "the constitutional effects of tartar emetic in small doses are an increase in the secretions and exhalations generally, especially of the skin." But one must remember that the small doses of Biddle are very large doses when compared with Professor Smith's one grain in a quart of water. And yet Professor Smith insists that his statement "is based upon clinical facts."

"A single drop of the tincture of nux vomica, given every ten minutes, will often produce the most marked relief in sick-headache, not of a neurotic origin." This is from Professor Smith. Biddle says: "In somewhat larger doses" (he mentions as high as five drops of the tincture as an allowable dose) "the stomach is disturbed." This is cause enough for "headaches not of a neurotic origin," and it actually does produce them in this way.

"It is well known," says Professor Smith, "that cantharides, when given in large doses, is liable to cause inflammation of the urinary tract; but it has been found that a single drop of the tincture every hour will, in many cases, relieve vesical catarrh."

"For diarrhœa of children, accompanied with slight inflammation, straining, and the passage of jelly-looking matter, but not true dysentery, five drops of castor-oil, given every hour in water, with sugar and gum, is an excellent remedy."

This is, as even the most inexperienced know, the very sort of diarrhœa overdoses of castor-oil produce.

Professor Smith has, in the cases above quoted, departed from the ordinary rule in giving remarkably small doses. This is the first generalization. Again, he has repeated his doses much more frequently than is usually recommended.

Thirdly, he has in no case produced the "physiological action" of the drug. Indeed, it is this very thing we are cautioned to avoid.

In the fourth place, he has based his statements "upon clinical facts," of which he has satisfied himself "that they are not the result

of coincidence, nor moral influence upon the patient," nor any other less tangible reason than the direct effect of the drug.

Of the thirteen cases quoted, the following tabulation may be made:

In *three of them* he emphatically asserts that the same drugs, given in large doses, produced effects similar to those they cause in minute doses.

In four others, Biddle distinctly asserts that large doses produce similar physiological effects to those caused by the small doses of the same drug. In one other (*nux vom.*) I have inferred it from Biddle's statement.

In five others, it is a well-known fact, to all conversant with the physiological effects of the drugs, that they produce similar symptoms, when administered in large doses, to the diseases Professor Smith recommends small doses to cure.

Omitting, then, for sake of exactness, the one in question, *nux vomica*, we have as follows: *Copaiba* produces and cures urticaria; arsenic causes and cures vomiting from more or less acute gastritis; atropia causes and cures a false croup; *ipêcac* causes and cures vomiting from great nausea; it also causes and cures a certain kind of diarrhœa, and to this might be added that the diarrhœa is most frequently accompanied by nausea; calomel causes and cures night headaches; it also causes and cures vomiting, also diarrhœa; corrosive sublimate causes and cures diarrhœa marked by tokens of acute inflammation; tartar emetic causes and cures a discharge from the bronchi; cantharides causes and cures acute cystitis; castor-oil causes and cures diarrhœa with jelly-like passages.

In every one of these cases, over causes as written, we might write "in large doses"; and over cures, write "in minute doses," and be within the bounds of exact truth and "clinically demonstrated facts."

In every candid mind the question can not help arising, Are these twelve drugs, so widely different in their nature and physiological effects, acting as they do on so many different parts of the organism, the only ones subject to these generalizations?

Does any one else know of any drug clinically proved to cure in minute doses symptoms similar to those produced by the same drug in large doses? Clinically demonstrated facts are in order. What is the breadth of these generalizations?

Yours, respectfully,

M. W. VANDENBURG, M. D.

Miscellany.

BOZEMAN'S METHODS OF TREATING URO-GENITAL FISTULÆ.—Dr. Bruntzel, of Breslau, in a review ("Centralblatt f. d. ges. Med.," 1883, No. 3) of a brochure consisting of several papers by Bandl, previously published in various numbers of the "Wiener medizinische Wochenschrift," on the Bozeman method of operating for vesico-vaginal fistulæ, and on the operation for uretero-vaginal and vesico-vaginal fistulæ, remarks that, while Winckel (in Billroth's "Handbuch der Frauenkrankheiten") refers evasively to Bozeman's methods, Simon recommended them very highly to unskilled operators, and Schröder speaks of them very favorably. The latter, however, describes them so briefly that reference must be had to Bandl alone for an exhaustive account of the procedure, which is but little practiced in Germany. Bandl makes the principles clear by numerous cases in which he has operated, quite a number of them being illustrated by drawings to show the relationship of the parts before and after operation. Bozeman lays the greatest stress on the preparatory treatment of the fistula. After cauterization of the raw surfaces with a twenty-per-cent. solution of nitrate of silver, cylinders of hard rubber are used to dilate the vagina. The process of dilatation is continued from three to five weeks, with gradually increased sizes, until the stretching of the vagina required for the operation is attained. At the same time the cicatrices are cut, which sometimes only show themselves to their full extent after protracted dilatation.

The operation is carried out in Bozeman's knee-chest position, under the influence of an anæsthetic. Bozeman has invented for this position a particular table and a special vaginal speculum, in order to

make use of as few assistants as possible. The refreshing of the edges of the fistula is done with a knife and with scissors of different curves, and includes the entire thickness of the vesico-vaginal septum. The stitching is done with straight, spear-pointed needles. Silver wire serves for sutures, which are secured by a leaden plate and perforated shot, the former being bent and shaped according to the requirements of the surface upon which it is to rest. In the after-treatment Bandl leaves a self-retaining English catheter in the bladder until the sutures are taken out. Only in small fistulæ does he dispense with it entirely.

In addition to his long list of cases he discusses the origin of fistulæ, especially uretero-vaginal fistulæ, and their treatment. Even where the largest fistulous openings exist, kolpocleisis is avoided, which operation Bandl says is a mistake in surgery. He proves it to be unnecessary by the brilliant results which have been achieved with Bozeman's method by different operators. A comprehensive table of twenty-six operations done by himself closes the work, the minute study of which Dr. Bruntzel urgently recommends.

CARDIO-VASCULAR DRUGS AND POISONS.—M. Germain Sée thus tabulates the chief facts now known about the elective action of these agents:

	STIMULATION.	PARALYSIS.
Cardiac muscle.....	Digitalin.	The same in the second period of action.
	Iodine in small doses.	Emetine.
	Camphor.	Salts of copper, barium, and potassium.
	Caffeine.	Chloral in large doses. Scillain.
Intra-cardiac muscular motor centers.		Saponin in its last period of action.
		Iodine in large doses.
Intra-cardiac inhibitory centers.	Muscarine.	Atropine.
		Fabarine.
		Sparteine in large doses.
Intra-cardiac ramifications of the inhibitory filaments of the vagus nerve.	Nicotine.	Pilocarpine, second phase of action.
	Pilocarpine.	
	Calabar bean.	
Trunk of the vagus nerve.	Aconitine.	Sparteine.
	Nepaline.	Nepaline, second phase of action.
Accelerator filaments of the great sympathetic.	Apomorphine.	Sparteine.
Medullary inhibitory centers.	Digitalin.	Chloral.
Vaso-motor centers..	Bromide of potassium.	Croton-chloral.
		Hydrocyanic acid.

COLOTOMY.—In the "Boston Medical and Surgical Journal" of February 22, 1883, Dr. J. Collins Warren reports two cases of colotomy, both operations giving only temporary relief. The first case was that of a German girl, twenty-three years of age, who entered the Massachusetts General Hospital with symptoms of disease of the rectum of one year's standing. She suffered great pain on defecation, in consequence of an indurated growth, which an examination showed obstructed the lower portion of the rectum. An incision, embracing all the tissues between the anus and coccyx, and including the lining of the bowel and the skin, gave relief for a week or two, when the symptoms of stricture again manifested themselves, and it was found that the disease had extended above the incision. Colotomy was performed in the manner described by Allingham, special attention being given to antiseptic precautions, as a slight attack of erysipelas had followed the first operation. With the exception of a slight erysipelatous blush there were no unfavorable symptoms, and the patient was discharged from the hospital in thirty days after the operation, with complete relief from suffering, and having two natural movements from the bowels daily. The disease, however, progressed, and she died in six months, being obliged to resort to opiates only a few days before her death.

The second case was that of an infant with congenital abscess of the rectum. In this instance the incision was made in the *right* groin, in accordance with the so-called paradox of M. Huguier, that the sigmoid flexure is found there in infants. Relief followed the operation; but the child died on the fourteenth day from a progressive emaciation. An autopsy could not be procured; but Dr. Warren thought that the ascending colon had been opened. Considering the fact that the position of the sigmoid flexure, as given by Huguier, is found in a comparatively small percentage of cases, and that marked emaciation occurs when the ascending colon is opened, although the rapid and abundant discharge of feces following the incision made it seem probable to him at the time of the operation that the opening had been made near the fundus of the cul-de-sac. He is of the opinion that the operation suggested by McLeod—viz., to perform abdominal section, when the rectum is wanting, free, and empty the end of the bowel and stitch it to the anal opening, although a severe operation—is to be preferred to all other alternatives.

Referring to the first case, after comparing the procedures employed in America, England, and Germany, in the treatment of cancer of the rectum, Dr. Warren says a linear division of the stricture which he has performed in a number of cases brings only temporary relief. A radical operation can only be attempted, with reasonable hope of success, in the earlier stages of the disease; but it is important to recognize the fact that the terrible suffering peculiar to cancer in this locality can be greatly relieved by an opening in the bowel at some point above.

DR. GARRIGUES'S CASE OF TRANSFUSION.—The New York correspondent of the "Boston Medical and Surgical Journal," who credits Dr. F. C. Valentine with having performed the operation in the case published in our last issue, remarks that, "as the number of respirations had begun to increase before the transfusion was resorted to, it seems probable that recovery would have taken place, without the transfusion, in consequence of the use of artificial respiration and the other ordinary means adopted." We fancy that very few who will take the trouble to read Dr. Garrigues's account of the case will agree with the writer in question.

THE NEW YORK CODE.—It is the opinion of some shrewd observers that the new code will seriously diminish both the consultation business of its supporters and the number of students who will seek instruction in the schools with which they are connected. For honest, truth-loving students of scientific medicine can have no sympathy with those who are willing to degrade their calling by affiliating professionally with medical quacks. On the other hand, the irregular practitioners have given formal notice that they have their own specialists, and that they have no wish to consult with those who are now seeking to obtain their patronage. Thus the advocates of the new code are likely to find themselves in the position of the greedy dog in the fable, who, in snapping at the shadow in the water, dropped the bit he was carrying, and so lost all.—*Medical News.*

NATIONAL SANITATION.—Congress has appropriated \$100,000 as an available fund for use in the work of checking the spread of epidemic diseases during the current year, should such action become necessary. We are glad to see that the Marine-Hospital Service is again charged with the direction of the work.

A NEW CITY HOSPITAL IN PHILADELPHIA.—The "Philadelphia Medical Times" calls attention to the inadequacy of the present free hospital accommodations in that city, and characterizes them as entirely unworthy of a city of the size of Philadelphia. Added to this lack of hospital room is the fact that the proximity of the Philadelphia Hospital to the Almshouse at Blockley has prejudiced the popular mind against the former institution, which has become associated with the Almshouse, and many of the respectable poor prefer no medical treatment rather than that which is furnished in the same institution with paupers. A petition to councils is now being generally circulated among the physicians of that city, having in view the removal of the Almshouse, and the exclusive use of the present buildings for hospital purposes. It is also proposed, if the city adopts the plan, to set aside enough ground for the erection of a Children's Hospital for Contagious

Diseases—an institution of which the city is greatly in need. The fact that a building site and an appropriation have been obtained in New York, through the influence of the profession, is mentioned as a stimulus to the hopes of some of the faint-hearted in Philadelphia.

A MOVEMENT AGAINST VIVISECTION.—The report of the Women's Philadelphia Branch of the Society for the Prevention of Cruelty to Animals, read at the annual meeting recently, states that the movement against vivisection is to take a more tangible form than heretofore. Arrangements are on foot for holding a public meeting in the latter part of February, and for taking at that meeting the initial steps toward the formation of an Anti-Vivisection Society in Philadelphia. Other means will also be considered for the suppression of vivisection, "that deadliest of all cruelties." Meanwhile, the thousands of sick men and women who could be relieved by an application of the results obtained by vivisection are to be left to die or suffer the tortures of disease. This is the class of people who strain at a gnat and swallow a camel.—*Medical and Surgical Reporter*.

THE ILLINOIS STATE BOARD OF HEALTH.—At the recent annual meeting of the Board, the following officers were elected: President, the Hon. Newton Bateman, of Galesburg; Secretary, Dr. John H. Rauch, of Chicago; Treasurer, Dr. A. L. Clark, of Elgin.

MOUNT SINAI HOSPITAL.—We are glad to learn that this excellent institution is likely to be allotted a considerable share of the profits of the Purim ball, to be held on the 15th inst.

THE UNIVERSITY MEDICAL COLLEGE.—The forty-second annual commencement of the Medical Department of the University of the City of New York will be held at the Academy of Music on Tuesday evening, the 13th inst., at eight o'clock.

THE NORTHWESTERN MEDICAL COLLEGE.—We are indebted to Professor J. P. Chesney, Secretary of the Faculty of the Northwestern Medical College, of St. Joseph, Mo., for a copy of the "St. Joseph Herald" containing an account of the commencement exercises of the college, which took place on the 20th ult. The members of the graduating class were as follows: S. A. Allen, Iowa; John W. Bullard, Nebraska; Noah Boaz, Missouri; Benjamin Cope, Kansas; A. J. Chamberlain, Iowa; William S. Chenoweth, Indiana; John J. Evans, Missouri; Alfred N. Fisher, Missouri; Benjamin F. Jones, Kansas; John C. Jones, Missouri; William T. Jeffries, Iowa; George C. Potter, Missouri; Isaac E. Stryker, Kansas; Samuel A. Wright, Iowa; Hugo Mager, Wisconsin; C. B. McColm, Iowa; George W. Pumphrey, Kansas; E. O. Barker, Nebraska.

THE AMERICAN VETERINARY COLLEGE.—The eighth annual commencement of this institution was held on the 28th ult. The following is a list of the graduating class: Harry Louis Alderman, William Henry Arrowsmith, Henry William Bath, William C. Bretherton, Eugene Burget, Lemuel C. Campbell, William Dana Critcherson, Irving S. Denslow, Christmas Evans, Julian Edward Gardner, Franklin Joseph Hanshew, Joseph R. Hodgson, Fred. Willis Huntington, Samuel K. Johnson, Franklin May Kain, Richard Kay, Arthur B. Morse, John Allebaugh Myers, W. Bertram Carnes Noyes, William Hamilton Pendry, Austin Peters, B. S., James F. Ryder.

The gold medal offered by the New York State Veterinary Society for the best examination in practice, and a prize of a case of instruments for the best anatomical preparation, were awarded to Mr. Kain; and Mr. Hanshew took the Trustee gold medal for the best general examination.

BLACK SPONGES.—It has been thought that the abnormal color sometimes presented by organic fluids in a pathological condition, also observed on bandages and different articles used in dressing, is due to their developing different fungi or microphytes. The same fact explains the singular phenomenon exhibited by toilet sponges, when their whole surface becomes black. M. Rapin, at a meeting of the Vaudois Medical Society, showed a specimen of these black sponges, which a lady had brought to him in great fear that it would give her a skin disease. M. Rapin calmed her fears by assuring her there was no such danger; but, not knowing how to explain the change of color in the

sponge, he handed it over to M. Dufour, who made a microscopical examination of it. The result of his examination is published in the "Revue médicale de la Suisse Romande." The blackness is owing to the development of a small fungus in the chitinous fibers of the sponge, where it produces numerous black spores, which become agglomerated, and form, with other organic debris, a compact mass. This fungus determines a peculiar alteration of the chitinous fibers, which also become black. In botanical classification this fungus belongs to the genus *Torula*, but differs from all other species of this genus. M. Dufour proposes for it the name of *Torula spongicola*. The presence of this fungus in a single sponge suffices to infect all other sponges that are near it. It can be cured, as well as prevented, by use of the ordinary disinfectants, such as a concentrated solution of carbolic acid, or boiling water.—*British Medical Journal*.

PAPERS saturated with fuchsin solution made yellow with sulphuric acid are recommended by Dr. G. Kroupa as very sensitive tests for gaseous ammonia. Ammonia invariably turns them red.

DEATH OF PROFESSOR VON HECKER.—Professor Carl von Hecker, of Munich, died recently at the comparatively early age of fifty-five. His contributions to the literature of obstetrics and gynecology are numerous and of great value. His continued activity, nearly up to the time of his death, is evinced by the fact that the last number of the "Archiv für Gynäkologie" that has reached us contains an elaborate report by him on the recent work of the Munich Lying-in Hospital.

DEATH OF M. SÉDILLOT.—The death is announced of M. Charles Sédillot, at the age of sixty-nine. M. Sédillot was well known for his "Traité de médecine opératoire."

DEATH OF PROFESSOR VON SIGMUND.—Professor Von Sigmund, the well-known Vienna syphilographer, died recently, at the age of seventy-three.

DEATH OF DR. A. B. DE LUNA.—On the 2d inst. Dr. Abelardo B. de Luna died, while yet but little past thirty years of age. Dr. De Luna was of Spanish descent, and will be remembered as having done some very creditable work in the way of translating the writings of several American physicians into Spanish.

NAVY INTELLIGENCE.—The remains of the late Medical Inspector B. F. Gibbs, brought home on the Nipsic, are understood to have been sent to Georgetown, D. C., for interment. — Surgeon T. N. Penrose and Passed Assistant Surgeon D. M. Guiteras are among the officers of the Swatara, which left Fort Monroe February 26th, bound to Cayenne, all ports on the Spanish Main, Aspinwall (the latter part of April), up the West Gulf Coast to Vera Cruz, and then to Key West. — A board for the examination of candidates for admission to and promotion in the Medical Corps of the navy, consisting of Medical Director P. J. Horwitz, President, Medical Inspector J. C. Spears, Surgeon J. H. Clark, and Surgeon J. Rufus Tryon, met in Philadelphia on the 1st inst. — Passed Assistant Surgeon Edward H. Green has been ordered to duty at the Museum of Hygiene, Washington. — Passed Assistant Surgeon N. McP. Ferebee has been ordered to the New York Navy-Yard.

ARMY INTELLIGENCE.—*Official List of Changes of Stations and Duties of Officers of the Medical Department, United States Army, from February 17, 1883, to March 3, 1883.*—CLEARY, PETER J. A., Captain and Assistant Surgeon. Granted leave of absence for four months on account of sickness, to take effect January 3, 1883, in extension of his authorized absence on certificates of disability. Par. 6, S. O. 40, A. G. O., February 16, 1883. — HEIZMANN, CHARLES L., Captain and Assistant Surgeon. To be relieved from duty in the Department of the Columbia. S. O. 12, Department of the Columbia, February 8, 1883. — TESSON, LOUIS S., Captain and Assistant Surgeon. To be relieved from duty at Fort Clark, Texas, and assigned to duty at Fort Ringgold, Texas, as post surgeon. Par. 5, S. O. 20, Department of Texas, February 21, 1883. — BURTON, HENRY G., Captain and Assistant Surgeon. The leave of absence granted October 2, 1882, is extended two months. Par. 2, S. O. 49, A. G. O., February 28, 1883.

Lectures and Addresses.

ABSTRACT OF

THE CARTWRIGHT LECTURES ON THE RELATIONS OF MICRO-ORGANISMS TO DISEASE.

*DELIVERED BEFORE THE ALUMNI ASSOCIATION OF THE COL-
LEGE OF PHYSICIANS AND SURGEONS, NEW YORK,*

By WILLIAM T. BELFIELD, M. D.,
CHICAGO.

LECTURE III.

TUBERCULOSIS, RECURRENT FEVER, VARIOLA, SCARLATINA,
ETC.

THE lecturer began by stating that scarlatina and diphtheritic scarlet fever were now classed among the so-called putrefactive fevers, and that septicæmia and puerperal septicæmia seemed also to be related to the other fevers of this class, while the micrococci found in the pustules and blood in variola were apparently identical in form with those of septicæmia. It was asserted that micrococci could also be found in the blood of patients with gonorrhœa, and, though experiments showed the probability that these were capable of transmitting the disease, yet the fact could not be said to be decisively established that they were its real cause. But about one disease there was no question, and that was what was known as anthrax, or splenic fever, or malignant pustule, or charbon, etc., which was so fatal in sheep, cattle, and other animals. This disease was not only found associated constantly with a bacillus, but it had been proved that this was the cause of it. This was the only disease that was proved to be caused by bacteria, and it was the one that was therefore constantly referred to by pathologists as going to prove the probability of the bacteria found in other fevers being their cause. Anthrax was both contagious and infectious, and it was endemic in certain parts of Europe, but sporadic in the United States and in other countries. It was often very fatal, and might be contracted by man by contact with affected animals, or by eating their flesh; and the spores of the bacilli retained their vitality for a long time, and were not affected by changes of temperature or climate.

When, therefore, we reflected on the close analogy and the clinical resemblance of anthrax to certain infectious diseases; since they, too, occurred sporadically or in epidemics, and were not influenced by climate, or season, or heat, or moisture; while they had fixed periods of incubation, ran definite courses, and were self-limiting, the question was apt to be suggested whether there was not really something more than the dream of a pathologist in this theory of bacteria being the cause of these analogous diseases. This analogy proved nothing, however, and, before accepting this theory, the matter must be as carefully investigated in each disease independently as it had been in the case of anthrax.

In regard to miliary tuberculosis, all pathologists were agreed that this disease in man was identical with the same

disease in rabbits, guinea-pigs, dogs, cats, etc., and it was characterized by aggregations of miliary tubercles in any of the organs of the body. Though this disease was now and had long been supposed to be contagious, yet the evidence on this point could not be said to be decisive. Inasmuch as tuberculosis was known to be caused by non-specific and irritating substances, there was no proof that the bacteria found were the sole cause. It had been shown that such substances as pieces of paper, thread, glass, dust, etc., if placed in contact with the peritonæum so as to irritate it, might cause an eruption of miliary tubercles which differed in no respect from those found in all other cases. When this fact was first discovered, some pathologists maintained that these tubercles were histologically different, but further observation had proved their identity. Others said that spontaneous tuberculosis differed from other varieties, in that it was not transmissible by inoculation. But the falsity of this assertion was proved by experiments on animals. Then arose another school, whose champions were Cohn and Niemeyer, who denied the specific nature of the disease altogether, and contended that it was only an inflammatory product, and with them originated the phrase, "No inflammation, no tuberculosis." But experiments soon revealed certain facts which demolished the Cohn-Niemeyer theory completely. It had long been observed that animals which were not especially prone to tuberculosis in their free state became so when kept long in confinement, and it was often noticed that among tame animals kept in physiological laboratories there was an excessive mortality from this disease. It seemed, therefore, that the disease was transmitted by something which was derived from the cages. And when rabbits and guinea-pigs were isolated, and then inoculated by mechanical irritants, no tuberculosis followed in a single instance, thus disproving Cohn's theory.

Then it was said that tuberculosis began in the intestines, and not in the lungs as a rule. But this was disproved by the following experiment: A certain number of healthy rabbits were confined in a room into which the breath of a number of tuberculous patients was directed, while an equal number of rabbits were confined in a second room so protected that no exhalations of any kind could enter; and then the animals were watched. Of those in the first room several died of tuberculosis in the course of a few months, but none of the others showed any indications of the disease. It was also shown that the simple inhalation of the dry sputa of tuberculous patients would give the disease to dogs, but saliva that had been boiled or acted upon by corrosive sublimate was found to be innocuous, both by inhalation and by subcutaneous injection.

Then, inoculations of tuberculous matter into the eye of animals gave marked results. It was found that when the force of the inflammation at the beginning, due to the irritation of the inoculation, had subsided, either under the influence of atropine or spontaneously, the eye would remain perfectly clear and of normal appearance for many days, but all at once, between the twentieth and thirtieth day, there appeared on the iris a number of small, grayish tubercles, which soon increased in size, and then became caseous; and,

if the animal were killed, similar tubercles would be found in the lungs and lymph glands. After all these, and numerous other experiments pointing the same way, it seemed impossible to discuss any longer the question of the infectiousness of tuberculosis, and the theories of Niemeyer could not be maintained to-day with the knowledge that had been obtained within the past five years. And Cohn himself acknowledged his former error when he said, in 1879: "There is scarcely a pathologist to-day who will deny that tuberculosis is a contagious disease." Though almost every pathologist was convinced of this fact, yet it was not the case with some of those physicians who regarded pathology as altogether extrinsic to clinical medicine. There were always certain people who could not be convinced of anything. One of this class of physicians would say that, if tuberculosis were really so infectious, he could hardly see how any of us were alive. But he might say the same of scarlet fever, or diphtheria, or many other avowedly infectious fevers to which the physician is frequently exposed. And it might also be objected that doctors and nurses did, in fact, occasionally contract the disease from patients. One seventh of the whole human family contracted it in some way. The fact of its being contracted by one from exposure to a person who had the disease could not be actually demonstrated, because during the long period of incubation, before any significant signs of the disease could appear, the person might have become infected from other sources. It had been found to be from two to four weeks after exposure before any signs of the disease appeared in rabbits, but in the human being the infecting matter might exist latent in the lungs without giving rise to any suspicions of its presence, and months, or even years, might elapse before any physical signs would show that the disease was fully developed. It was, therefore, practically impossible to trace the disease in man to the true source of infection.

Again, an infecting agent was not always capable of transmitting a disease to every animal with which it came in contact, but there must be a suitable soil for the reception of the infecting material in order for it to develop. For example, the herbivorous animals were especially susceptible to anthrax, but all rabbits and all sheep were not susceptible, for a certain number would resist every effort at inoculation. Dogs, on the other hand, enjoyed an exceptional immunity from this disease, yet very young dogs could often be inoculated. Again, the susceptibility to the disease varied in the same animal at different times, and the severity of the attack varied in different animals after they had contracted it. But wherein this diversity of susceptibility consisted we did not know. We only knew that, while the disease might be given to a healthy animal, yet every healthy animal was not liable to contract it. It seemed probable, indeed, that the general law of the survival of the fittest was at work here, and was, from generation to generation, slowly but surely eliminating those that were most liable to the disease, and that at length none would be left to perpetuate it, and so it would at last die out.

The name of Koch had not heretofore been named in this discussion designedly, because the lecturer did not want

to convey the idea that the popular impression that Koch discovered not only the bacillus of tuberculosis, but also the infectiousness of the disease, was a true one. The contagiousness of phthisis was acknowledged five years before Koch's published report of the discovery of the bacillus. The question now with most of the German, French, and Austrian pathologists was not whether tuberculosis was contagious, but whether the bacillus of Koch was the contagious agent.

Numerous examinations of tuberculous material by various observers had already revealed occasionally the presence of bacteria, but there was great lack of evidence in support of the theory that these were the cause of the disease, when Koch, in his quiet, unostentatious way, read at a meeting in Berlin a paper which startled the world, and within two hours the news was telegraphed all over Europe that tuberculosis had been proved to be caused by a distinct variety of bacterium, and that the disease could not occur without the presence of this organism. When such a man as Koch made a statement of this kind, it could not be passed by as one hastily made and of doubtful truth, for it was a remarkable fact that, although he had been for the past eight years almost constantly talking and writing on this subject, he had never as yet been detected in a single error of observation. That Koch fully appreciated the situation, and the importance of accuracy in statement, was shown by the course he took in this matter. Having once discovered the presence of the bacillus tuberculosis in tuberculous tissues, he did not at once blazon the fact abroad, but he kept it to himself until he had satisfied himself that this was the case in all tuberculous tissues, and that these bacilli could be cultivated outside of the body, and then could be inoculated so as to transmit the disease. And he found it a fact that these bacilli were present in all tuberculous patients, and were never present in others. But then the crucial test remained to be tried, and he performed it thus: He first propagated tuberculous matter under his own observation, and then he saw to making it perfectly free from any foreign materials; and he carried the propagation on successively from the first to the eighth generation, occupying in this a period of six months, and with these isolated descendants of tuberculous tissue he finally inoculated two hundred animals, such as rabbits, guinea-pigs, white rats, field mice, and dogs; and, on killing these animals after a considerable lapse of time, he found tubercles and the same sort of bacilli in them in every case. After two years of such careful investigations he at last quietly announced his opinion in a very modest way.

One could easily see, therefore, that a mature statement made by Koch was not to be classed with the hastily formed opinions of other pathologists. If veracity were accorded to him, there was only one possible escape from the conclusion that the bacilli tuberculosis caused tuberculosis, and that was, that he had committed some subtle error either in manipulation or in observation while making his experiments. But, if he had, this was the first error he had been known to make, and so it was altogether improbable that he had been at fault here. Yet, however sure we might be that his work was free from errors of manipulation and ob-

ervation, we must, before accepting them as such, wait until other investigators had successfully repeated his experiments with similar results; and, until such investigations had been made, we might fairly decline to accept Koch's conclusions, because this might have been his first error. Koch stated that he found the same variety of bacillus in every animal he examined dead of the disease, and also in the sputa of these animals, but he never found it in others. But a later observer stated that in some cases he could not detect the bacilli in the sputa, and in some tubercles he could not find them. But this was probably because at the time of the examination the bacilli were already to a great extent deprived of their vitality, and hence were insufficiently stained by the coloring fluid, which only brought out the living organisms. The latest observations by European investigators confirmed the statements of Koch.

[The lecturer at this point said that he would have to postpone any further remarks on this subject, as his voice was giving out, and he wished to keep what was left to explain a few pictures he was about to throw on an illuminated screen, illustrating the different kinds of bacteria found in different diseases. The pictures were all photographs, and hence faithful to nature:

1. The first picture showed the beginning of a pyæmic abscess in the heart muscle, where a minute vessel was plugged with pus corpuscles and micrococci, which were invariably present in every abscess.

2. An advanced stage of a broken-down abscess, where the micrococci not only filled the cavity, but were extending into the walls of the abscess.

3. A piece of skin just beyond the advancing edge of an erysipelatous inflammation, where micrococci were always found, though it had not yet been demonstrated conclusively that they were the cause of the erysipelas.

4. Bacteria from a case of pneumonia. In a few cases where observations had been made, micrococci had been found at the edge of the inflammatory process as a sort of advanced guard, just as in erysipelas.

5. A section of the liver from a rabbit dead of anthrax.

6. A section of a kidney from a patient dead of small-pox, showing a vessel filled with micrococci, magnified one hundred diameters.

7. The same magnified seven hundred diameters, showing the individual organisms in the vessel. But, as no inflammatory action was shown in the tissues immediately surrounding these organisms, it was nearly certain that they were post-mortem appearances, and had no existence during the patient's life.

8. *Spirillum bacilli* of recurrent fever, found in the blood.

9. A piece of the spleen of a rat dead of anthrax, illustrating how it was even possible to recover from these diseases after the bacteria had gained a foothold in the system. It was known that after a time these anthrax bacilli died spontaneously, and here you could see those which were dying only indistinctly stained. This disease was not universally fatal, and finally disappeared, because the amount of carbonic acid in the blood was increased in septic diseases as a result of putrefaction, and it was probable that these

organisms are destroyed by this carbonic acid which they themselves induced.

10. *Bacilli malarie* of Klebs, consisting of minute rods distinguished by a black dot at each end, while the body itself was almost invisible. Nothing definite was known of the relation of these to the cause of malarial fever, but that they did exist in the blood of patients with this disease there was no doubt, and it was also true that they were found to disappear after administering quinine. But that quinine was the actual cause of their disappearance was not absolutely proved by this fact.

11. Illustrating the appearance of the liver in a case of typhoid fever, showing a capillary vessel filled with bacteria. This also was a disease characterized by the presence of a particular organism, but more than this could not be said. The form of this micrococcus was perfectly characteristic, and it was a form not found in the body of a patient dead of any other disease.

12. A section of a kidney from a patient dead of diphtheria of the bladder, the intercapillary network of the kidney being filled with masses of bacteria. These bacteria were not found in the tubules, but rather in the vessels themselves, and this, therefore, would seem to indicate that they were not the product of a local inflammation, but of a general infection.

13. The same section of liver of a typhoid-fever patient as shown in the picture before the last, but magnified not one hundred, but seven hundred times. The oblong bodies of the bacteria could easily be seen here.]

LECTURE IV.

THE BACILLUS TUBERCULOSIS; INFECTION IN GENERAL; THE ECONOMIC BEARINGS OF THE SUBJECT.

IN the first part of the lecture the subject of the relation of bacteria to tuberculosis was continued. Until we could otherwise explain the fact that tuberculous matter, in however minute quantity, when introduced into the anterior chamber of the eye of the rabbit or other animal, was followed by local and general tuberculosis after an interval of three or four weeks; and until we could explain how it was that the injection of the sputum from tuberculous patients caused tuberculosis, while the injection of corrosive sublimate or other such poison, or of the sputum from a patient not tuberculous, did not produce tuberculosis; until we could explain how the inhalation of putrid sputum from a tuberculous patient caused tuberculosis even in dogs, while the inhalation of sputum from a patient sick of some other disease did not cause tuberculosis; until these facts were otherwise more satisfactorily explained, we must concede that tuberculosis was an infectious disease. By this it was not meant that it affected every animal alike, but only certain animals predisposed to it. The investigations of Koch in this direction were referred to, and the conclusion was reached that clinical observations, so far as they had any bearing upon the question at all, went to confirm his results. While his essential statement that the bacilli induced the disease could be criticised only by those who had opportunities for isolating the bacilli and injecting them into the

animal to be experimented upon, yet his preliminary statement that the bacilli were always present in tuberculosis certainly fell within the range of a considerable number of critics, and the results of different observers so far almost uniformly confirmed his original assertion that tubercle bacilli were to be found in the sputum in most if not all cases of pulmonary tuberculosis, and what was far more significant was the fact that thus far this particular bacillus had not been found in any other sputum than that from a patient suffering from this particular disease.

Up to the present time the presence of the bacillus in the sputum had possessed no direct practical value in the diagnosis of pulmonary tuberculosis, for, in the cases in which it had been detected, the diagnosis had been made previously from the physical signs. Whether or not the bacillus would be found in the sputum of patients liable to or suffering from the commencing stage of tuberculosis, before the physical signs of the disease became manifest, was a question to be decided in the future. In this connection Dr. Belfield mentioned the fact that the sputum of twenty hospital patients in Germany was examined by Dr. Councilman and himself, with reference to the presence of the bacillus tuberculosis, and the parasite was found in each of the twenty cases. Afterward, on comparing the result of their observations with those obtained on physical examination by the physicians of the hospital, it was found that all but two of the patients were known to have been suffering from pulmonary tuberculosis; and that, in the case of these two, the physical signs were only those of chronic bronchitis. Had an autopsy been obtained, it was not impossible that tuberculosis would have been found in these two cases also, for it was well known that pulmonary consumption often existed for some time before attention was called to the presence of any physical signs of the disease. Whether the presence of a bacillus similar to that found in the tubercles connected with pulmonary tuberculosis also existed in other tubercular deposits throughout the body, was a question which had not yet been determined with absolute certainty. Fränkel had found the bacilli in laryngeal ulcers of tuberculous patients, but had failed to find them in syphilitic and other laryngeal ulcers.

There was a proneness of some animals, an adaptation of their tissues, favorable to the growth of certain of these organisms. For instance, the bacillus anthracis and the bacillus tuberculosis were rarely found in the body of the dog. The theoretical explanation, based upon a difference in the size of the lymph-channels in different animals, lacked practical demonstration.

Many questions of interest arose in connection with the subject of the etiological relation of bacteria to tuberculosis, but time would permit of the mention of but one, namely: the possibility of infection from tuberculous meat and milk of cattle affected with so-called "pearl disease." But, even though it could be proved that the subcutaneous injection of such meat or milk would produce tuberculosis, it did not follow that its introduction through the alimentary canal would be followed by the same result. Koch found, five years ago, that the mouse was so susceptible to anthrax as to be a reliable agent in testing the strength of anthrax ma-

terial when introduced subcutaneously, yet attempts to induce the disease in mice by feeding them with anthracic tissues and spores proved unsuccessful. The explanation might lie in the general acidity of the gastric and intestinal secretions of the carnivora, but, whatever might be the explanation, the fact remained. Virchow believed it had not yet been proved experimentally that tuberculosis could be induced in animals by feeding them with the meat and milk of cattle suffering from tuberculosis. Although the question of infection through the alimentary canal had not been positively decided in the affirmative, the speaker thought that, in view of the fact that so many children, especially those artificially fed, died of intestinal tuberculosis, and the fact, as had been stated, that thirty per cent. of the cattle in certain herds in this State were affected with tuberculosis, it would be well to make further investigations into the subject.

Dr. Belfield then reviewed the experiments of certain investigators, notably those of Büchner, with reference to the possibility of transforming a bacterium capable of producing infection into a harmless one by successive cultivations, and arrived at the conclusion that the apparent success in this direction had no foundation in fact, but rested upon faulty methods of culture and other circumstances constituting fruitful sources of erroneous conclusions. The attempts made by Pasteur to modify the degree of virulence of bacteria by exposing them to unusual influences he believed to have been equally inconclusive. It seemed that the apparent modification of function, through the influence of oxygen, could be obtained by simple dilution of the original organism.

Before fully entering upon the subject of the possibility of procuring immunity against the infectious diseases by inoculation, we should remember that immunity against the infectious diseases in the ordinary sense of the word was relative, not absolute. An attack of small-pox, of scarlatina, of measles, etc., while it usually gave the individual immunity from the disease for the future, did not always do so. In discussing this subject, the experiments regarding anthrax were taken as an example of those upon all the infectious diseases. Pasteur's theory might be briefly and fairly stated as follows: That immunity against anthrax, as against other infectious diseases, might be secured by one attack of the disease; the same effect might be obtained as in variolation of the human subject, by harmless inoculation with the specific virus after exposure to unusual influences whereby its effects upon the animal were rendered less dangerous. In regard to this theory, Koch remarked that, although some of the infectious diseases occurred in some animals but once as a rule, yet no immunity was secured against others by the first attack, as erysipelas, gonorrhœa, recurrent fever, etc. Anthrax itself not infrequently occurred twice in the same individual. Löffler, Koch's assistant, inoculated fifty-two rats with the fresh virulent material of anthrax. Thirty survived the first inoculation, twenty-three the second, thirteen the third, three the fourth, and one the fifth and sixth. Koch reminded Pasteur, therefore, that, even though the animal survived the virulent inoculation, it did not thereby secure immunity against

subsequent infection with anthrax. Again, Koch called attention to the fact that immunity against subcutaneous inoculation did not necessarily prove immunity against infection through the mucous membrane, especially through the alimentary canal. Certain experiments by Pasteur were referred to in which he seemed to have demonstrated that sheep at least might acquire increased power of resistance to subcutaneous inoculation with anthrax, but he also demonstrated, at the same time, that his protective "vaccination" destroyed almost as large a percentage of animals as usually died from spontaneous infection. Since that time, however, his results seemed to have been more favorable, but the effect of his virus seemed by no means to be uniform.

In reviewing the subject-matter presented in these lectures, the author said that the germ theory assumed, as he understood it, that all infectious diseases were caused by the vital activity of parasitic organisms, and, besides the facts already established in support of the theory, there was also certainly strong presumptive evidence thereof, such as regarded a stage of incubation, the unlimited reproductive power of the virus, and the cyclical course and self-limitation of the disease.

The stage of incubation could not be explained by the mode of action of any unorganized virus or chemical compound with which we were acquainted, all of which began to manifest their effects upon the animal so soon as absorption occurred, the period varying with the rapidity of access to the circulation, according as the alimentary canal, the skin, the lung, or the subcutaneous tissue was the avenue of approach. Certain poisons, even the so-called organic ferments—ptyalin, pepsin, and trypsin—began to manifest their influence immediately upon contact, and, while they might cause the phenomena of septicæmia, they did not possess a stage of incubation.

Another fact in the history of many of the infectious diseases was an unlimited power of reproducing the virus, which could not be attributed, as had just been said, to the agency of an unorganized poison, or even to that of an organic ferment. Illustrations in proof of this statement were quoted. The virus of the so-called infectious diseases must, then, be something capable of reproduction, and reproduction was at present regarded as characteristic of an organism; no unorganized poison, no acid, base, salt, alkaloid, or ferment was at present known which was capable of manifesting the phenomena shown by the virus of syphilis, variola, scarlatina, etc.

Reference was made to the conditions under which the bacillus anthracis was capable of sustaining life and multiplying, conditions pertaining to temperature, moisture, etc., and there was a wide field open for future study in this direction with regard to the bacilli upon which other infectious disease might depend for their causation. The power of inheriting immunity from certain of the infectious diseases was also referred to, an example of which seemed to belong to syphilis. It was the universal testimony that this disease was most virulent immediately after its introduction among a people previously unacquainted with it, whereas the inhabitants of countries where it had

been long in existence seemed to acquire partial immunity against it.

Dr. Belfield concluded his remarks by pointing out the benefit which would arise from a more perfect knowledge of the relation of germs to the etiology of different diseases from a sanitary and economical point of view, the necessity for experimental research in the settlement of questions relating to this subject which were yet undecided, the expense which such investigations necessarily involved, and the material aid given by European governments toward the promotion of such scientific researches, and suggested that our own Government might manifest a laudable ambition in attempts at rivalry in this direction, which at present, however, it seemed little inclined to do.

Original Communications.

MEDICAL ETHICS AND ETIQUETTE.

COMMENTARIES ON THE NATIONAL CODE OF ETHICS.

BY AUSTIN FLINT, M. D.

First Article.

INTRODUCTORY REMARKS.

It is proposed to contribute a series of articles, to appear in successive numbers of the "New York Medical Journal," each article to consist of a portion of the Code of Ethics adopted by the American Medical Association, with commentaries. The remarks in this number of the journal are introductory to the series.

This announcement might lead one who had given to the subject little or no attention, to ask, "Wherefore the propriety of recognizing the principles of duty applied to medicine as constituting a distinct branch of ethical science?" "Are not the rules in ethics which would govern the practitioner of medicine the same as in other applications?" There are certain fundamental truths which, of course, underlie all possible applications of ethics; but the adaptations to different conditions of human life call for separate consideration. Political ethics and social ethics are recognized different branches of ethical science. Ethics as applied to the medical profession involves adaptations which require to be considered apart from the science as a whole. In various points of view, the practice of medicine, when contrasted with other pursuits, is peculiar. The medical practitioner does not deal with facts and laws having the exactness of those pertaining to physics. In employing means for certain ends, he can not calculate results with mathematical precision. The problems of disease embrace many and varying elements, which can not always be estimated with absolute certainty. They offer a wide scope for the exercise of judgment in the practical applications of medical knowledge. It is by no means easy in all cases for the practitioner himself to judge correctly of the results of his practice; and, for those who are not versed in the study of disease, this is an impossibility; hence, he is often blamed undeservedly, and as often, perhaps, he receives

praise not strictly his due. People can not form a true judgment of the merits of a physician by the character of his work, as can be done with reference to mechanical callings, and even the sister professions of law and theology. The choice of a family doctor is in many instances determined by other circumstances than those which pertain to scientific knowledge or skill, and, as a rule, the relations between the physician and his patients are not purely professional, but involve the ties of friendship, and often affection. In no other profession or calling are extrinsic means available for competition to the same extent as in the practice of medicine, and in no other pursuit are the opportunities so great for ungenerous or unscrupulous advantages. Under these circumstances it is not to be wondered at that physicians are peculiarly sensitive respecting their professional relations and rival practitioners.

Peculiar responsibilities pertain to the practice of medicine, aside from those involved in the treatment of cases of disease. In the exercise of his profession, the physician becomes intimately acquainted with the private character of his patients. Weaknesses, faults, vices, can not be concealed, if not confessed. He can not escape, if he would, knowledge of family secrets. He is exposed to peculiar temptations. Other responsibilities relate to the honor and purity of the profession, the promotion of medical knowledge, the prevention of diseases, and the protection of the public health. The charitable gift of professional services to institutions and to individuals is an obligation which, with certain limitations, is inseparable from the medical profession. Important obligations arise from the opportunities afforded by the relations of physician and patient for advice and aid in overcoming injurious and immoral habits. There are duties connected with the expression of opinions concerning the nature, the probable cause, and the termination of diseases to patients and their friends, with communications respecting the diseases of patients to others, and with testimony given in courts of law. Finally, moral obligations to society are to be fulfilled by the members of the medical profession, individually and collectively, with reference to irregular practitioners, secret nostrums, and all the multitudinous forms of quackery.

The rules of conduct adapted to the peculiarities of medicine constitute medical ethics. These rules have a moral weight. Medical etiquette, on the other hand, consists of the forms to be observed in professional intercourse. These are conventional. They have not the binding force of ethical rules; nevertheless, they claim observance. The medical profession receives not a little ridicule for observing rules of etiquette, but their observance is a protection against not only embarrassment and confusion, but misapprehensions and dissensions, injurious alike to physicians and patients.

If there be ground for a distinct system of ethics applied to medicine, the rules of conduct which the system requires should be codified. A code of ethics adopted by the profession represents the views held by the majority of its members, and is, therefore, binding on all. It is indispensable for the sake of reference whenever differences of opinion arise. It indicates the proper course to those whose

moral perceptions may be defective. It may prove a safeguard against the bias of personal interests. It thus contributes to the purity and dignity of the medical profession. Much would be gained in the popular respect for the profession were the public better acquainted than they are with the ethical rules by which its members assume to be governed. It is, perhaps, a common impression that the objects of a code of medical ethics have exclusive reference to the interests of the medical profession. So far from this, the objects are of far more importance to the public welfare than to physicians. The truth of this statement will be apparent, without argument, to any who will take the trouble to become acquainted with the provisions of the code. The writer may add that, in preparing these articles, he has been actuated by the hope that they may do something in the way of a general diffusion of knowledge on subjects which they who are not members of the medical profession are apt to think do not in the least concern them. These remarks, having reference to the ethics of medicine, will apply measurably to the rules of professional etiquette.

Prior to 1847 the codes of medical ethics which existed in this country were instituted by State or local societies, and in many, probably in most, of the States of the Union there were none. At the convention which resulted in the organization of the American Medical Association, in 1847, a committee, of which the late Isaac Hays was chairman, were instructed to report a code of ethics. This committee reported a code which was adopted unanimously, and from that date it has been recognized as the National Code throughout the whole country. With the single exception of a recent action by the New York State Medical Society, this code has remained without any material additions or modifications. It has had, therefore, the approval of the medical profession of the United States for a period of over thirty-five years. It is but justice to the memory of an excellent English physician to state that the American code is based on that prepared by Thomas Percival, and published in 1803. Credit to Percival was given by Hays, in a note accompanying his report, as follows: "On examining a great number of codes of ethics adopted by different societies in the United States, it was found that they were all based on that by Dr. Percival, and that the phrases of this writer were preserved to a considerable extent in all of them. Believing that language so often examined and adopted must possess the greatest of merits for such a document as the present—clearness and precision—and having no ambition for the honors of authorship, the committee which prepared this code have followed a similar course, and have carefully preserved the words of Percival whenever they convey the precepts it is wished to inculcate." Percival's code of ethics was prepared for a son who was about to engage in medical practice, and who died before its publication. It was dedicated to another son who was engaged in the study of medicine. In its composition, as he says in the dedication, his thoughts were directed to his son, "with the tenderest impulse of paternal love, and not a single moral rule was framed without a secret view to his designation, and an anxious wish that it might influence his future conduct." The following is another quotation from the dedi-

cation: "The relations in which a physician stands to his patients, to his brethren, and to the public, are complicated and multifarious, involving much knowledge of human nature and extensive moral duties. The study of professional ethics, therefore, can not fail to invigorate and enlarge your understanding, while the observance of the duties which they enjoin will soften your manners, expand your affections, and form you to that propriety and dignity of conduct which are essential to the character of a gentleman."

The code of the American Medical Association will form the basis of these articles. The arrangement of topics adopted in that code will be followed, namely: 1st. The duties of physicians to their patients, and the obligations of patients to their physicians. 2d. The duties of physicians to each other and to the profession at large. 3d. The duties of the profession to the public, and the obligations of the public to the profession. The whole series of articles will embrace the entire code, with such comments as may suggest themselves. In a few instances the writer will venture upon critical remarks. In connection with topics which belong to medical ethics will be introduced remarks upon etiquette.

REMARKS ON MEDICAL ETHICS.*

By H. R. HOPKINS, M. D.,

BUFFALO, N. Y.

MR. PRESIDENT: In the growth of the institutions of government, students first notice a generally confessed want of some peculiar service or duty, and then an attempt upon the part of the people to create an organization for the purpose of supplying this service or performing this duty. In this country the operation of this law is to produce corporations more or less permanent as to time, and with functions that in many and varied ways add something to the comfort and well-being of the people at large. At a period early in the history of this State, the year 1806, there was a conviction in the minds of the people that an organized medical profession would contribute to the diffusion of true science, and particularly the knowledge of the healing art. Impelled by this conviction, the people created a corporation known as the Medical Society of the State of New York, and declared that the members of this corporation, and the members of the various local corporations which it embraced, constituted the medical profession of the State. There thus came to be, in this State, an organized or corporate medical profession, and the reason why there was this corporate medical profession was simply because the people thought they would be benefited by the services of such a special class, and therefore made provision for the class, and for its perpetuation.

In these enactments for the organization of the medical profession, the good of the profession was not the end to be attained; the ultimate end sought was the good of the people.

In order that the special class, the profession of medicine, should be at once efficient in its work and conspicuous

among the people, it was granted certain rights and privileges. Chief among these was the right to enact by-laws for its own government and for the control of its own future.

The scope of the grant to enact by-laws, rules, and regulations was very great, but was not unlimited, and the limits were plainly stated by the people at the first, and have since been rigorously maintained. Such rules and regulations must, in general, tend to the diffusion of true science, and particularly the knowledge of the healing art, and in particular must not be contrary to, nor inconsistent with, the laws of this State or of the United States. But within these wide limits the people enacted that the medical profession, in its corporate capacity, should shape and govern its present and future. The efficiency of the profession of to-day demonstrates the wisdom of our fathers and the strength of those institutions which rest in the principle of man's capacity for self-government and self-development.

We are assembled to-day from every part of this Empire State, and we are now engaged in the consideration of a question which, in its ultimate analysis, is simply the question of how far can the individual members of the medical profession of the State of New York be trusted with self-government? How safe is the honor of our profession in the keeping of its individual members? To what extent can the individual be trusted to determine and to set forth what is professional conduct in a given case? or, How far shall the corporate profession anticipate the action and speak for the individual?

The essence of the question is, Are we individually capable of self-government? It is safe to say that few events in the history of the profession have attracted as much attention as did the adoption of the present Code of Ethics by this society.

A construction has been put upon the action of the society and its new code which has stirred the medical profession of the world. For the impression our action in making a new code caused we are not responsible; with the construction put upon that code by various individuals and societies we primarily have little concern. In the consideration of the question we now have before us, it is of the highest importance that we should have only clear ideas regarding the step taken by this society in adopting the new code, and regarding the nature of that code. And in this connection it might be well to remark that, because an impression, opinion, or belief is the prevailing impression, opinion, or belief, it does not by any means follow that the same is in like manner true. Instances in which the majority have held erroneous opinions are too frequent to need individual citation.

We have before seen that chief among the grants of the people to this society was the grant of the right to enact by-laws, rules, and regulations for the government of its members, and we shall do well to recall the limitation placed by the people upon the exercise of this right. Our code of ethics is simply a by-law, rule, or regulation, which we adopt and enforce as an exercise of a corporate right. Such rules are necessarily limited—on the one hand by our sense of the needs of the profession, and on the other by the will of the people, expressed in the term "that they shall not be con-

* Read before the Medical Society of the State of New York, February 6, 1883.

trary to, nor inconsistent with, the laws of the State or of the United States."

The offense of the code of 1882 is found in the sentence beginning with the twenty-ninth line, and reads: "Members of the Medical Society of the State of New York, and of the medical societies in affiliation therewith, may meet in consultation legally qualified practitioners of medicine."

In order that we may arrive at a correct appreciation of the spirit and the letter of this sentence, it is necessary, first, to come to an understanding of what it means "to be entitled to all the rights and privileges of the practice of physic and surgery under the laws of this State," or, rather, if one so entitled has the right to the consulting attendance of others similarly authorized. The first question is, Mr. President, whether you have the right to call upon men bearing the same commission as yourself for their attendance in consultation, when such attendance is desired by your patients or by yourself. If you, Mr. President, have that right, then I and many others have the same right; and we then come to our second question, Where did we get this right? Simple as these questions may seem, upon their answer rests the whole matter that has taken so much of the time and attention of the profession of this land during the last year. That worthy men stand on opposing sides is simply because of the different views held concerning the nature and the source of the peculiar rights of the physician.

To my mind there is only one answer that can be given to these questions, and that is, The right to practice physic and surgery includes the right to consulting attendance of physicians, and these rights come to individual members of the medical profession from the people. To men holding this view of the nature and source of the rights of the physicians of this State the code could not refer to consultations in language much different from that above used, and still be in accord with the laws of the State. To men who maintain that a physician has the right to withhold consulting attendance from another because he does not like him, or does not like the color of his gloves or the fit of his coat, or because their opinions regarding the nature of disease or the remedial action of drugs differ—to such the language of the code of 1882 is quite objectionable, and from their premises should certainly be changed. But are these gentlemen sure their premises are perfectly in accordance with the facts? In case this sentence of the code should be changed to make it accord with expressed sentiments of the various medical societies which have seen fit to resolve upon this matter, it would read:

Members of the Medical Society of the State of New York, and of the medical societies in affiliation therewith, shall *not* meet in consultation legally qualified practitioners of medicine who hold views usually held by homœopathic or eclectic physicians. The code of 1849 was not worded in just this way, but the practice under that code is fairly expressed by the restrictive clause just quoted. We should not be afraid to show our colors on this question, and the friends of the present code have the right to ask its opposers to support a code which shall plainly set forth the principles for which they declaim. That their views are fairly presented above we maintain, and would ask attention

to a few points of criticism upon such a rule of conduct. Although this supposed code differs in its letter from that of 1849, the spirit is the same in each, and for purposes of criticism they may be considered as one. Mr. President, such a regulation could not be enacted and enforced, for the reason that it would not only be inconsistent with the laws of the State, but would be contrary to them, and in direct violation, or attempt to violate, the acts of 1857 and of 1865, creating the homœopathic and eclectic professions.

In these acts the people decreed that the members of these societies were physicians entitled to all the rights and privileges of the practice of physic and surgery under the laws of this State, while the code of 1849 and our supposed code assert that they are not physicians, and are not entitled to the rights peculiar to physicians.

Since April 13, 1857, the code of ethics of this society has been illegal and void, and any attempt on our part to enforce its provisions would have been to make war upon the people of the State of New York. This statement is made without reservation or qualification, and I challenge any man here at this time, or at any time, to show its incorrectness. The people of this State, for their own purposes, created the corporations known as the State and County Medical Societies, and declared that their members should have all the rights of physicians; and the people (perhaps not with the same wisdom) created the homœopathic and eclectic societies, and similarly decreed that their members should have and exercise all the rights of physicians under the laws of the State. No matter whether it suits our taste or whether it does not, whether it seems to us wise or unwise, whether we like it or whether we do not like it, this is the case, and our code of ethics, if we would have one, must recognize the fact, and bow before the will of the sovereign people. We must remember that we exist by the will of the people for the good of the people, and that it does not rest with us to say when, or for what cause, the people have forfeited their rights to our services; and when the corporate medical profession, when this society, announces that its members may not meet in consultation legally qualified practitioners, we attempt to dictate to the people, to sit in judgment upon the wisdom of their legislative enactments; we arrogate to ourselves powers that in no manner or degree belong to us, and we do that which we can ill afford to do—we make our profession ridiculous.

There are men in our profession who do not seem to grasp the meaning of the restriction placed upon the rights of State and county societies to enact by-laws, rules, and regulations. We have a vague and general conception that such by-laws, rules, and regulations must not be opposed to the laws of the State, whereas the fact is, they "must not be contrary to nor inconsistent with" such laws; and in this language the term "not be contrary to" is strong enough, but the weakest part of the phrase, and may be considered to apply, as it were, to the letter of the law, while the strength of the restriction is found in the term "nor inconsistent with." The former may be evaded much easier than the latter, which is far more sweeping and comprehensive, and includes not only the letter, but the more subtle spirit as well. We must not forget, therefore, that the people are far

more strict with us than that our rules and regulations should not be contrary to law; and hence it is that, if we would avoid the legal inconsistency which would invalidate our rules, those rules must either not mention the subject of consultations, or must treat that question as it is treated by the code of 1882. We have now practically before us these questions: What are the rights of physicians in the matter of consultations? and What was the operation of the laws of 1857 and 1865 upon the members of the homœopathic and eclectic medical societies created thereby? That the true answer to these questions is found in the code of 1882 I think all unbiased people will agree, and we should not forget that, if this answer is true, it will be none the less so even if this society votes to the contrary.

In the foregoing I have attempted to make prominent the relations of the profession to the medical law of the State, as well as the relations of the profession to the people—the law-making power.

This is done for the reason that this society, the exponent of the profession, undertakes to declare to the world through our code of ethics what are those relations, and it is, before all things, important that the utterances of this society upon this subject should be such as to need no revision.

At first glance, it would be supposed that there could not by any possibility be two opinions among physicians upon the questions involved in this issue; that the elements were so few and so simple that there could be no question about their interpretation. But the fact is, that the medical profession of the whole civilized world is to-day in *two camps*, anxiously watching the deliberations of this society upon this question.

It may not come amiss to spend a moment in hasty review of some of the utterances of the fathers of the profession, and see what light those views will throw upon this question.

Such a review is more particularly necessary at this time for the reason that the opposers of our present code have done much to create the impression that the adoption of such code was in every way revolutionary, and opposed to all the traditions of the profession; while the fact is that one can not make even a cursory study of the writings of the great minds of the early days of this society without being struck with the fact that those men foresaw the dangers and trials of the present, and time after time warned the profession, in no uncertain tones, against the very dangers which now menace our future.

The principles and practice of the best men in this society found expression, in the year 1823, in a *System of Medical Ethics*. This system was the result of the labors of a committee of the most eminent medical men of their times, who were appointed February 8, 1821, were ordered to sit again July 5, 1822, and who reported February 6, 1823—just sixty years ago this day. This system was the exponent and guide of the profession from the time of its adoption until the year 1849, when it was supplanted by the code of the American Medical Association.

I would ask the gentlemen who oppose the code of 1882 to construe the acts of 1857 and 1865 in the light of

this provision of our primitive code. Section 8—Specifications of Medical Ethics in Practice—says:

“Honor and justice particularly forbid a medical practitioner infringing upon the rights of another *who is legally accredited*, and whose character is not impeached by public opinion, or civil or medical authority, whether he be a native, or a stranger settled in the country. There is no difference between physicians but such as result from their personal talents, medical acquirements or experience; and the public, from the services they receive, are the natural judges of their intellectual advantages.”

I recommend the careful study of this condensed sermon on ethics to the men who have started the cry that the code of 1882 is disloyal to the profession. I wish it could be read in the ears of every physician in this State or country who has seen fit to impugn the motives of the members of the special committee who had the courage to recommend the unpopular truth, and earnestly hope that every member of this society who has a vote upon this question will weigh well these lines of wisdom, and learn from them what the fathers thought concerning the relations which should exist between legally qualified physicians.

In my judgment, the code of 1882 is simply a construction of the existing medical law of the State in the light of the principles of our primitive system of ethics. And I further contend that the wholesale distribution of medical diplomas, sought and valued because they are licenses to practice, which has been going on for the past half-century, has not given us a profession in any way superior, in regard to personal dignity, elevation of character, or professional pride and ambition, to the medical profession of the early years of this society; that the calm, judicious, and unbiased utterances of such men as Romaine, Wilson, Rodgers, Stearns, Manly, and Pascalis are to-day safe and competent guides in matters of ethics. The American Medical Association was organized for the purpose of raising the standard of medical education and attainment in this country, and for years the best men in that association were appointed upon committees, and made annual reports upon the various questions pertaining to matters of medical education and ethics. In 1852, the Committee on Medical Education were fortunate in having for their chairman Dr. Worthington Hooker, of New Haven, who presented to the association a most elaborate and thoughtful report.

Such an impression was made by this report that this society ordered the complete paper republished in its proceedings, and it appears in the Transactions for 1852.

Much of the thought of this report is pertinent to our present consideration, and I would ask your attention to a few sentences, and would remind you that they stand indorsed by the combined strength of the national and our own State society.

“In connection with the subject of organization, it becomes an interesting inquiry, What should be the *legal* position of the profession? It is manifest that it can not be the same in this that it is in some other countries. It must be conformed to the genius of our institutions, it must recognize most fully the voluntary principle. Any plan which does not recognize this can not succeed. It is in vain to

attempt the enforcement of any direct legal restriction upon the people in regard to medicines.

"That there should be some laws in relation to the medical profession there is no question. In the opinion of the committee, the object of these laws should be simply this: *to give protection to those measures which are calculated to secure to the community a well-educated body of physicians.* Everything inconsistent with the attainment of this object should be discarded. The medical profession should be a single body of men without any set of opinions. And the ground of admission to their ranks should have no reference to opinions; but there should be the greatest latitude in this respect. Character and education should furnish the only basis of membership. We are persuaded that if the profession as a whole should take this view of the subject, we should stand in a much better position before the public than we now do. We should then be able to propose to the community the question, clean and stripped of all incidental and embarrassing considerations, whether they would sustain an educated or an uneducated profession. But, when other grounds are taken, and opinions are made in any degree the basis of admission or expulsion, we lose this respect and confidence, for we enter into competition with opinionists of every grade, and upon their own level. At this moment the strife between the regular profession and other self-constituted medical bodies is regarded, by even sensible men in the community, as being for the most part a war of opinions.

"And some ground is given them for this view of the subject by occasional acts by individuals, or even by some of our associations. . . .

"If this ground should be distinctly and firmly taken by the great body of medical men, we should then stand before our legislatures and the community upon a basis which would commend itself to the judgment of every reasonable man. But any act on the part of physicians which trenches in any degree upon freedom of opinion, prevents our holding successfully this broad ground before the public."

Mr. President, I have endeavored to set forth reasons why the code of 1882 is worthy of our support, in that its utterances are in harmony with the letter and the spirit of the medical law of the State; and I would now maintain that the principles enunciated in the quotation just made support the assertion that the action of this society in adopting its present code was wise and expedient.

We know full well that it is one thing to feel sure that a certain declaration of principle is well founded, incapable of controversion, and quite another matter, to be sure, that it is expedient at this time to formally set forth and publish such a declaration. A conclusion upon the latter question includes the consideration of all the facts comprised in the former, and many more besides; but one can not study the writings of the leading men in our profession—the men who have devoted so much of their talents to the organization and maintenance of the various corporate associations of the profession, State and national—associations whose objects are the up-building of the professional character, the attempt to realize the ideal, the good physician; one can not learn of these old masters and not be convinced that the

policy of the profession of this State, as shaped by the code of 1849, has been based upon false premises, has been untrue to the genius of our art and of our institutions, has not commended itself to the judgment of reasonable men, and that its reformation is called for by every argument of fidelity, justice, and expediency.

Mr. President, I would close with the thought implied in the word "expedient." Is it *expedient* that the profession of this State should shape its policy by the code of 1882?

My mind is absolutely overwhelmed in the attempt to grasp the issues involved in this question. The facts involved in the relations which should exist between the individual members of the profession; between the members of the profession and their patients; between the profession and the people who make the State; between the profession of to-day and the profession of the future; between the science of to-day, its imperfections, its limitations, its undevelopment, and the science of the future, with its full fruition, its glorious realities—all these are involved in this question of expediency.

Never in the history of this society has a more momentous question come up for its consideration and decision; and, as that decision is given, will the profession of this State, like the chosen people of old, this day go over Jordan, or turn back to wander in the wilderness? Men have said, and I have blamed them for it, that the code of 1882 is revolutionary; but they are right; it is revolutionary, and the profession under its guidance would be like the traveler who has been following a will-o'-the-wisp, but at length discerns the beacon light of a mansion where he fain would be, and resolutely sets his face in that direction and determines to brave all dangers, to overcome all obstacles, to surmount all difficulties, that after many trials he may rest and be refreshed in the mansion of many delights—the intelligent confidence of a free people.

TRICHINIASIS IN ITS RELATION TO PUBLIC HEALTH AND NATIONAL ECONOMY.

By FRANK S. BILLINGS, VET. SURG.,

BOSTON.

Second Article.

TRICHINIASIS IN SWINE.

As has been previously mentioned, trichinæ were first discovered in the flesh of the hog by Leidy, in 1847.

It is to German observers that we must look almost entirely for any statistical statements with reference to the percental infection of swine with trichinæ; for in no other country is there, at present, anything approaching a systematic examination of pork, and even in Germany there is still much room for improvement. To make such statistics really valuable, it is absolutely necessary that the law should require *all hogs to be examined for trichinæ*, and they should be examined before the carcasses are cut up for distribution or packing; and, again, *the pillars of the diaphragm should invariably be the part examined*, while the examination may

also extend to other parts. Unless there is uniformity among all observers as to the part of the hog selected for examination, all comparison of the results obtained is next to useless. As has been shown, the pillars of the diaphragm are that portion of the hog which is earliest and most richly infected with trichinæ; and, as there is no evidence that this part has been selected by German inspectors as the portion to be invariably examined, I must say that I think the ratio of infection would be found still larger were this part examined.

The best sources from which to obtain German statistics are: Virchow's "Archiv," "Vierteljahrsschrift f. gerichtl. Medicin," "Deutsche Zeitschrift f. Thiermedizin," "Veterinair. Berichte" of Hanover and Saxony, "Archiv f. Thierheilkunde," and the "Mittheilungen a. d. thierärztlichen Praxis d. preussischen Staate."

From these sources have been compiled the following: Rostock. Petri reports:

1869....	Number of hogs examined,	5,457,	trichinous,	1
1871....	" " " "	6,520,	"	2
1872....	" " " "	6,555,	"	0
1873....	" " " "	6,441,	"	3
1874....	" " " "	6,731,	"	2
1875....	" " " "	7,222,	"	5
1876....	" " " "	7,165,	"	0
1877....	" " " "	7,562,	"	2
Total.....	.....	53,653		15
Percentage 1: 3,543.				

For Braunschweig, Uhde reports whole number examined between 1866 and 1880, 111,806 hogs; trichinous, 29.

1866-1867	there was found 1 hog, of every 6,700 examined, trichinous.
1867-1868	" " " " 1 " " " 5,700 " "
1868-1869	" " " " 1 " " " 14,500 " "
1869-1870	" " " " 1 " " " 15,300 " "
1871-1872	" " " " 1 " " " 13,387 " "
1872-1873	" " " " 1 " " " 4,874 " "
1873-1874	" " " " 1 " " " 5,129 " "
1874-1875	" " " " 1 " " " 7,004 " "
1875-1876	" " " " 1 " " " 13,183 " "
1876-1877	" " " " 1 " " " 7,127 " "
1877-1878	" " " " 1 " " " 5,879 " "
1878-1879	" " " " 1 " " " 10,397 " "
1879-1880	" " " " 1 " " " 3,857 " "

PRUSSIAN STATISTICS.

	No. of hogs examined.	Trichinous.	Measly.	No. of official examiners.
1876.....	1,728,595	800	4,705	11,915
1877.....	2,057,272	701	5,434	12,865
1878.....	2,524,105	1,222	6,165	16,251
1879.....	3,164,656	1,938	9,669	17,413
1880.....	3,342,303	2,284	11,379	18,332
Total....	12,816,831	6,945		
Percentage, 1: 1,845.				

The Prussian report for 1880 deserves some special consideration.

The percentage of trichiniasis among hogs has, we see, constantly increased with each year since 1876. In 1879 it was 1:1,632, and in 1880, 1:1,460, which must be attributed either to greater exactness among the examiners, or to the numerical augmentation of the latter. In Berlin, the per cent. of infection was (1880) 1:1,247, while in Posen,

of the number examined, 1:138 was found trichinous. No endeavor, of any moment, has as yet been made in Germany to arrive at the original source from which hogs become infected. Three hundred and twenty-nine cases of trichiniasis among human beings, and four deaths, are recorded. These cases were all traced to the consumption of improperly cooked, or insufficiently examined, pork. In Berlin there were but sixteen cases of human trichiniasis, a much smaller number than in any previous years, which is attributed to the greater stringency with which the examinations are carried out. One of these cases is instructive from the fact that the person who died consumed a piece of raw pork known to be trichinous, in order to show his disbelief in the danger from eating such meat. Of examinations of American pork this report says: Three thousand and thirty infected pieces were found.

Such an examination of American pork is absolutely without statistical value, as no one knows how many such pieces come from the same hog, for at least two sides, two shoulders, and two hams could come from one and the same hog in the same lot or consignment of smoked or salted American pork. The report says: "No examiner should be expected to investigate more than twenty sides a day." (?)

In Schleswig, of 782 "amerikanischen Rouladen," 8 were found trichinous; of 1,952 sides, 64; of 3,900 hams, 66; and of 13 shoulders, 3. At Stettin, 72,230 American sides were examined, and 1,124 were found trichinous.

The number of swine infected with *cysticercus cellulosæ*, the embryo of the human tape-worm, *Tenia solium*, is worthy of American consideration.

From Hamburg, Germany, we have the following instructive, as well as suggestive, statistics:

1878..	Of 35,510 American hams examined,.....	397	trichinous.
1878..	Of 14,003 " sides "	85	"
1878..	Of 17,113 European hams "	3	"
1878..	Of 222 " sides and 10,838 hogs examined.....	none	"
1879..	Of 79,864 American hams examined,.....	1,087	"
1879..	Of 22,749 " sides and shoulders examined.....	196	"
1879..	Of 28,710 European hams examined,.....	2	"
1879..	Of 16,204 " hogs "	1	"
1880..	Of 55,008 American hams "	566	"
1880..	Of 23,589 " sides "	270	"
1880..	Of 49,943 European hams, sides, and hogs examined.....	none	"

At Blankenburg, from 1864 to 1865, 7:8,000 hogs examined, and but 1 found trichinous.

At Hanover, from 1865 to 1866, 18,656 hogs examined, and 12 found trichinous.

At Frankfort on the Oder, 8,000 hogs examined (1875 to 1876), and 4 found infected.

At Copenhagen, 1867, 8,174 examined, and 15 trichinous.

At Charkov (Russia), 1876, 3,550 examined, and 5 trichinous.

These statistics could be multiplied *ad lib.*, but they are sufficient to demonstrate the results of continental examinations. It is to be greatly regretted that no other

country gives any statistics whatever as to the examinations of pork for trichinæ.

TRICHINÆ IN AMERICAN PORK.

The question of the percental infection of American hogs with trichinæ is one of immense importance, not only from an economical stand-point, but from that of public health as well. Before discussing the various opinions which exist upon this point, it will be as well to consider the results of a few examinations aside from those quoted from the Hamburg reports:

At Rostock, Germany, 12 of 622 American sides were found trichinous.

At Gothenburg, 8 out of 210.

At Elbing, 2 per cent. of the pieces examined.

At Schleswig-Holstein, of 5,673 pieces, 47 infected.

Professor Mueller, of the Berlin Veterinary College, wrote me in December, 1880, that of 88 *live American hogs*—part of a shipment—that *had been sent to Dresden, the inspector there found 14 trichinous*.

Dr. Loring* says: "I do not know that Germany or France has even examined for this disease *in live hogs*."

"Where ignorance is bliss 'tis folly to be wise."

The foregoing was reported by me in American papers at the time, and subsequently in the Report of the Imperial Board of Health of Germany, and several German medical reviews; and *could* have been as well known to our agricultural department as the presence of pleuro-pneumonia in the District of Columbia, a fact ocular demonstration of diseased lungs could scarcely force upon eyes blurred by political blindness.

At Turin, Italy, February, 1879, 4 per cent. of a lot of Cincinnati hams were found trichinous, which led to governmental restrictions being placed upon further importations.

The continual recurrence of such facts has caused a more or less strong feeling on the Continent of Europe against the use of American pork—a feeling which nationalism and the public prints have fostered to the fullest extent.

The result has been that in several countries restrictive measures have been introduced regulating the importation of American pork which no one with the true facts before his mind can deny the justice of. Naturally, the old adage, "touch a man's pocket and you touch his heart," found illustration upon this side of the Atlantic. It was protection, but justified, carried home to the American producers for more sensible protection than the American principle, which utterly ignores the masses, the consumers, for the benefit of the few.

An embargo against the importation of American pork on account of trichinæ is especially justifiable, as it is largely the masses—viz., the poorer classes—that are consumers of that article.

This measure tends to protect the poor man's health, while American protection tends to make the cost of living as severe as possible.

The result has been: The pork interest became alarmed and called upon our Government to help them.

Our consuls, all over Europe, were requested to make inquiries as to the true nature of these reports, and to notify our Government as to the results of their examinations. One thing in their reports is very manifest: they went for information chiefly to *importers*, persons interested nearly as much as the American exporter. It is not my purpose to refer to these reports in detail, but they displayed fully as much patriotic defense of the non-trichinous condition of American pork as the Continentals did in the opposite direction. Unfortunately, Europeans had some figures to help their case that were hard to get over. An earnest desire to arrive at the truth of the matter pervaded neither our representatives at home nor abroad.

As with contagious pleuro-pneumonia of our cattle, so with trichiniasis of our hogs. Our Government adopted a prevaricating and cowardly course; it sought to "bluff down" the results of foreign examinations, and either did not seek to know the results, or ignored home examinations.

In the face of a Report of the State Board of Health of Massachusetts—numerous copies of which were sent to Washington, which contained a paper on the subject of trichiniasis, and statistics of the examination of the largest number of hogs which had, until then, been made in this country—the State Department at Washington published a singular document, which requires our attention.

Clauses 8, 9, and 10 read as follows:

8. "That the percentage of American hogs infected with trichinæ is, *in all probability, by reason of the superiority of the breed, and feeding, much less than that among the hogs of any other country.*"

(a) When a government through any of its departments makes a statement with reference to any question of so grave importance as *trichinæ* in our pork, it should have some stronger grounds than a "*probability*" upon which to support its assertions.

There are no records of the Government ever having authorized any examination of American hogs for trichinæ.

(b) Who ever heard of the *breed* of hogs having any influence upon trichinæ-infection? Who was the learned informant of our Government in this matter?

Superiority of feeding, so far as grain is concerned, has but little influence upon trichinæ-infection, if any at all, so long as hogs are allowed to root in refuse or run at large.

Such assertions can not be justifiably made until we know the *original source from which hogs derive trichinæ*.

With reference to "corn-feeding," Dr. Jansen T. Payne* makes some assertions which are of interest, but equally ridiculous with the foregoing, and show very little study of the trichinæ question. He says, of the hogs he examined at New Orleans: "All the hogs infected with trichinæ ARE CORN-FED ANIMALS; *no mast-fed animals were found to be infected,*" which is as much as saying *that corn-feeding is a cause of trichiniasis*—an assertion, as an investigator, I should be ashamed to have to father. Wild hogs that are not corn-fed have been found infected with trichinæ.

* Letter to Health Congress.

* Ninth Annual Meeting of American Public Health Association.

9. "That freedom from trichiniasis of the *two great pork-consuming centers of the West*, Chicago and Cincinnati, furnishes the *strongest possible evidence* of the purity of American pork. In Chicago, of 40,000 deaths, with causes reported, for a series of years, *only two* were from trichiniasis. During the same time *NONE* were reported in Cincinnati."

(c) Does the author mean that the people of these two cities consume more pork than those of New York, or the packing-houses?

(d) The consumption of pork as food bears no relation whatever to the number of cases of trichiniasis among people. One might almost be justified in saying *that the consumption of known trichinous pork did not.*

The way it is eaten does, however. Well cooked or not, that is the question.

Clause 10 indorses the last assertion:

"The reported cases of trichiniasis among human beings have resulted from eating uncooked pork," etc.

Hundreds of cases of trichinous infection are either so slight as to escape the attention of the doctors, or do not cause inconvenience enough to necessitate calling a doctor, or, as will be shown, if severe, are mistaken for something else. The tone of the governmental argument is false from the bottom; as to eating *uncooked pork*, many slurs are made at our German citizens in this regard, while we, of English descent, fail to see that carnivorousness and its results are common to all people; the German indulges in raw, spiced, or smoked pork, and from it derives trichiniasis; the American eats raw or uncooked beef, and derives a tape-worm. Comment is unnecessary, the only difference being, the German runs a greater risk of being sick or losing his life; the act is the same.

(To be concluded.)

Book Notices.

Pestilentia in Nummis. Geschichte der grossen Volkskrankheiten in numismatischen Documenten. Ein Beitrag zur Geschichte der Medicin und der Cultur. Von Dr. L. PFEIFFER und C. RULAND. Mit zwei Tafeln-Abbildungen in Lichtdruck. Tübingen: H. Laupp, 1882. Pp. x-189. [From B. Westermann & Co. Price, \$2.20.]

SELDOM, if ever, has a book of this character been placed before the medical profession. Viewing it from a numismatical stand-point, it is work of decided merit, embracing, as it does, a description of every medal known to have been produced in commemoration of the great epidemics which have ravaged the world since 1505.

Although much could be said relative to this subject, it is not our purpose, nor does it come within the scope of this journal, to discuss it. From a medical point of view, it contains very little to interest the profession, except, perhaps, as a book of reference, and even in this respect it falls so far below the standard works on this subject as to make it comparatively valueless. The opening pages mention briefly the dates when such diseases as are considered epidemical were first recognized as distinct affections. Neither history nor description of these diseases is attempted, and, when throughout the book reference is made to them, it is merely to introduce the subject of numismatics. The book is well printed, and the plates, illustrating a great number of medals, are excellent.

A Handbook of Treatment (Notes on Hospital Practice). Edited and published by S. M. Miller, M. D. Philadelphia. Pp. 470, 8vo. [Price, cloth, \$4; sheep, \$4.50; half Russia, \$5.]

As a vade-mecum to the busy practitioner or the student of medicine, this little work, containing suggestions and hints such as the ordinary emergencies of an every-day practice may at any time call for, will be found of much value. It embodies the opinions and experiences of many of our most prominent practitioners in hospital and private practice.

BOOKS AND PAMPHLETS RECEIVED.

Farmacopea Nazionale e Generale, Materia Medica, e Terapia del Prof. Dr. C. Ruata, già Assistente di Materia Medica presso la R. Università di Padova. Contiene oltre ai preparati proprii, tutti i preparati farmaceutici delle Farmacopee degli Stati Sardi, dell'Orosi, del Campana; della Farmacopea Austriaca, Belga, Danese, Francese, Germanica, Inglese, Russa, e degli Stati Uniti d'America; l'azione dei farmaci e le indicazioni terapeutiche; i pesi e misure dei differenti Stati; suggerimenti pratici sul modo di ricettare. Verona e Padova: Drucker & Tedeschi, 1883. Pp. vii-970.

Sopra un Caso di Laparotomia per Occlusione Intestinale. Pel Dott. C. Ruata. Pp. 13. [Reprint from the "Gazzetta Medica Italiana—Provincia Veneta."]

Transactions of the Thirty-second Annual Meeting of the Illinois State Medical Society, held at Quincy, May 16, 17, 18, 1882. Pp. 274.

Is Gonorrhœa a Bacteria Disease? By Newberry A. S. Keyser. Pp. 8. [Reprint from the "Maryland Medical Journal."]

The Connection of the Lower Organisms with Infectious Diseases. By W. T. Councilman, M. D., Baltimore. Pp. 12. [Reprint from the "Archives of Medicine."]

Tuberculosis as an Infectious Disease. By W. T. Councilman, M. D. Pp. 6. [Reprint from the "Maryland Medical Journal."]

A Study of the Malformations, Variations, and Anomalies of the Circulatory Apparatus in Man, etc. By Randolph Winslow, M. D., Baltimore. Pp. 40. [Reprint from the "Annals of Anatomy and Surgery."]

On the Treatment of Gunshot Wounds of the Abdomen in Relation to Modern Peritoneal Surgery. By J. Marion Sims, M. D., LL. D., etc. Pp. 32. [Reprint from the "British Medical Journal."]

Addresses delivered on the Occasion of the Dedication of Cooper Medical College Building. By Levi C. Laue, M. D., etc., and by Edward R. Taylor. Pp. 42.

On the Radical Cure of Hernia by Heaton's Operation. By William T. Bull, M. D., etc. Pp. 14. [Reprint from the "Medical Record."]

Cooper Medical College, San Francisco. Annual Announcement, Session of 1883.

Annual Report of the Directors and Medical Board of St. Michael's Hospital, Newark, N. J., January 1, 1883.

Third Annual Report of the Newark Charitable Eye and Ear Infirmary, Newark, N. J., from January 1 to December 31, 1882.

Announcement of the Woman's Medical College, of Baltimore, for the Session, 1882-'83.

College of Physicians and Surgeons of Chicago. Announcement of the Spring Session of Lectures and Practitioners' Course, 1883.

Western Reserve University, Medical Department, Cleveland, O. Announcement. 1883-'84.

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VACCINATION IN THE FRENCH ARMY.

THE French Minister of War has recently issued substantially the following instructions regarding the vaccination and revaccination of the army. Regimental medical officers, and those serving with detached bodies of troops, are henceforth charged with the service of vaccination. They are required to vaccinate or revaccinate all recruits at once on their joining the force, and to repeat the operation on individuals of previous contingents in whom it failed of success at first, repeating the attempt on all refractory subjects as often as possible during the four months following the first trial.

The operation is to be done with a needle or with a lancet, three punctures being made on each arm. At each puncture, or at most after every second puncture, the instrument shall be charged anew with lymph. Medical officers must establish and maintain an abundant supply of vaccine, giving preference to different sorts of vaccinifers in the following order: (1) infants not less than four months old, and of good health; (2) healthy adults not previously vaccinated; (3) healthy adults that have been vaccinated before; (4) animals. The effects of the inoculations and the evolution of the pustules shall be observed attentively, with a view to distinguishing with certainty between true and false vaccinia. The results are to be recorded only as successful and unsuccessful, doubtful cases being included under the latter term. No case shall be registered as successful unless the lesion presents the positive characteristics of the vaccine pock.

Every case of death from small-pox shall be made the subject of a report addressed to the director of the sanitary service of the *corps d'armée*, stating as precisely as possible: whether the disease was contracted in the barracks, in the hospital, in the garrison, or elsewhere; whether the person had been vaccinated, once or more than once, before or after his joining the army; whether the vaccination was successful or unsuccessful; what sort of vaccine it was done with; specifying, in short, all the circumstances tending to throw light upon the question of vaccination and revaccination.

In the main, no doubt these regulations will secure not only the efficient performance of vaccination in the French army, but also such a systematic and precise registry of the results of the operation that in years to come the statistics may be accepted as far more trustworthy and to the point than is commonly the case as regards the matter of vaccination on a large scale, whether in civil or in military life. There are some particulars, however, in which, we think, much will depend on the judgment of the individual medical officer, and others in which no

personal qualities of his whatever can overcome what we can not but consider as defects in the regulations.

In the first place, we question the wisdom of restricting any man who is fit to be an army surgeon to the use of any particular instrument for vaccination, and especially to the method by puncture. Then, too, several questions arise apropos of the injunction to renew the lymph on the instrument after, at most, every second puncture. How is it to be renewed? Is it to be plunged again and again into the actual pock on the vaccinifer's arm? Most probably, as the regulations seem to contemplate arm-to-arm vaccination as a rule. If such is the case, it is to be hoped that surgeons will improve on their instructions by seeing to it that no needle or lancet smeared with the blood of the person or persons to be vaccinated is brought into contact with the vaccinifer's open pock, but that a fresh instrument is used at each resort to the pock, or at least that the instrument is thoroughly cleansed. If such precautions are not taken, risk will be run of inoculating the vaccinifer with syphilis. But, is the needle or lancet to be charged with stored lymph? If it is, then the method by puncture is pretty sure, in our opinion, not to give the full benefit of the possibilities of vaccination, and many unnecessary failures will have to be recorded. Indeed, vaccination by puncture is open to a number of objections, which, however, it is not our present purpose to mention.

We think it would be far safer to let the regimental surgeon perform the operation of vaccination in his own way, cautioning him, perhaps, as to certain methods to be avoided, than to fix on him the responsibility of establishing and maintaining an abundant source of vaccine supply. Such an undertaking as that often taxes the ability of those who have been specially trained to it. We take it that "animals" (meaning calves, we presume) are named last in the list of vaccinifers to which preference is to be given, simply because their use is expensive. Surely, the French authorities can not mean to be understood as saying in general terms that a revaccinated man is to be preferred for this purpose to a calf. It is very much to be regretted, indeed, that adults, and especially those that have been vaccinated before, should be allowed to serve as vaccinifers under any ordinary circumstances. The resort to such questionable sources of vaccine may be allowable in the case of a body of troops so situated that nothing better is available, but most assuredly it should not be tolerated as a general thing.

As to the record of results, we are not told whether every one of the six inoculations in each case must give rise to a characteristic pock, in order to justify the registration of the case as successful, or whether a less number will suffice. We doubt if it is conducive to truthfulness of the record, too, to set down all doubtful results as failures, for we think it perfectly practicable to distinguish between lesions that are manifestly vaccinal, although not perfectly developed, and those that are traumatic or the result of complicating factors, and *a fortiori* between those of the former category and the entire absence of any result. We must express our hearty approval, however, of the injunction to repeat the operation again and again in cases of failure, and we have no doubt that its faithful observance

will astonish those who are under the impression that in the majority of cases revaccination necessarily fails of its object.

THE DISCUSSION OF ETHICS.

It is evident that the question of ethics is not generally regarded as having been finally disposed of, even in this State. The recent action of the Medical Society of the State of New York simply maintained the stand taken the year before, with the implied understanding that Dr. Roosa's resolution, generally interpreted to mean *no code*, but happily named by Dr. Elsberg, in a letter published in our last issue, the "*gentleman's code*," was to come up again for final action next year.

There has been but little public advocacy of the new code since it was re-affirmed last month, and for reasons, it seems to us, that are creditable to the good taste of its supporters. So far as the effect of any such advocacy in this State is concerned, it would have been nil, for the new code is a *fait accompli*; the only other reason that we have been able to see for defending it further is, a purpose to foster a sentiment in other States favorable to the adoption of an equivalent course of action—arguing a spirit of propagandism from which we trust that the people of New York, physicians as well as others, may ever remain as free as in the past.

While these considerations are perfectly obvious, and have rendered it improper for the medical journals of New York to speak editorially in favor of the new code, or for the champions of the latter to take the initiative on the subject in any way, since they had voluntarily thrown off all allegiance to the American Medical Association, and could not with any propriety seek to influence its action even indirectly—on the other hand, those who opposed the late action of the State society have been under no such restriction. That action of the society practically arraigns the code of ethics of the American Medical Association, and now is the proper time for its adherents to come to its support publicly. Such being the case, it is gratifying to find that Dr. Squibb is not the only man capable of defending the old code in a catholic and decorous way, and we are sure that our readers, whatever their individual impressions may be of the merits of the case, will profit by studying Dr. Flint's series of papers, the first of which is published in this number of the journal. The fact that Dr. Flint has passed much of his professional life in other parts of the country than New York, no less than his well-known probity, his entire freedom from anything approaching partisanship, his kindly way of viewing the acts and motives of his fellow-men, and his well-earned eminence as a practitioner and teacher of medicine, makes it peculiarly fitting that he should undertake the task in question.

But, the ball having thus been set in motion, it becomes perfectly proper for the supporters of the New York code, and those who prefer still another course of action, to resume the argument from which the considerations we have herein pointed out have hitherto restrained them. On that account, we are glad that Dr. Hopkins has decided to publish the paper he read

at the recent meeting of the State society, which also we have the privilege of inserting in this number of the journal. We trust that the discussion, since it must come, will engage the voices of other members of the profession of like qualifications, and not again degenerate into the abusive and unseemly squabbling that figured so largely in it prior to the late meeting of the State society.

THE MITCHELL ENTERTAINMENT FUND.

This is not the first time we have asked our readers' attention to the relationship between the successful working of organized bodies of physicians and proper attention to the cheering and warming influence of that mild form of conviviality for the lack of which many a society of lofty aims has fallen far short of their fulfillment, even if it has not come to an untimely end. We all feel an instinctive confidence in any deserving enterprise that is set on foot by a party of men gathered together around the mahogany, and scarcely to a lesser degree is our trust strengthened by that dilute form of indulgence in good cheer that is commonly carried out in the standing posture, especially when it involves such an aggregation of individuals as to entail more or less jostling and the consequent zest of danger to clothing if not to person. Such a touch of nature might perhaps have soothed the disgusted philosopher of the Stanislaus after the "chunk of old red sandstone took him in the abdomen." Certain it is, that its effect on a congregation of medical men is in the highest degree conducive to permanence of the organization. We call to mind one of the most vigorous of our New York medical societies, that spent its early years in the chilling atmosphere of a lecture-room, with a blank dreariness diversified only by an occasional squabble over the constitution and by-laws. These conflicts proved mere goads, however, without the slightest roborant action, and the society seemed moribund. Its rejuvenation dates from the change involved in the introduction of a social element. So obvious is this fact to its members, indeed, that they are wont to confess to each other that it is the *ingesta* that hold them together.

If this is the case with a small special society, such as the one to which we have alluded, it is not on account of its being small, or because it is circumscribed in its scope, for the larger societies find themselves fain to call in the aid of the same subtle force from time to time. A striking example is to be found in the incident that occasions these remarks: namely, the gift of the sum of five thousand dollars to the College of Physicians of Philadelphia, by Dr. S. Weir Mitchell, the income to be used in defraying the expense of an annual entertainment. This sum, we understand, has been formally accepted by the college, and is to be known as "The S. Weir Mitchell Entertainment Fund." Here in New York, too, our larger societies find it necessary to pay tribute to human nature in the same way, but, so far as we know, no special provision is made for the requisite outlay of money. Individuals are always found among us who are quite willing to loosen their purse-strings, and we are inclined to think that too often the demand is met quietly year after year by very much the same men. Doing good by stealth, they have

no occasion to blush, for they do not "find it fame." It would be exceedingly decorous, no doubt, if a few of these gentlemen would commit the overt act of providing such a permanent fund as Dr. Mitchell has furnished for the profession in Philadelphia, and perhaps in the end they would find such a course no greater tax upon their generosity than the one they now follow, while the profession, as is no more than right, would know to whom it was indebted, and to whom honor was due.

We all know that Dr. Mitchell has fed hysteria to good purpose, and it may be that in feeding doctors he will earn for himself an epitaph no less graceful than that of Graves, who "fed fevers." At all events, the accomplished author of "Fat and Blood" has deserved well, not only of his townsmen, but also of his brethren throughout the land; and we are quite sure that it will be recognized that not the least of his titles to their esteem and gratitude is the wise and timely act that we have chronicled.

THE PROPOSED PENNSYLVANIA ANATOMY ACT.

A BILL is now before the Pennsylvania Legislature to regulate the practical study of anatomy in the State. It has been prepared, we understand, by several of the Philadelphia teachers of anatomy. The bill provides for the creation of a Board of Distribution for furnishing unclaimed dead bodies to the several institutions that are entitled to dissecting material. The Board is to be made up of the professors of anatomy, the professors of surgery, and the demonstrators of those branches, in all the incorporated medical and dental colleges of the State, together with a representative of every non-incorporated school of anatomy or practical surgery that has, now or at the time of the appointment of such representative, not fewer than twenty-five pupils.

All public officers having charge or control of dead bodies are required to keep the Board informed in regard to the number of such bodies under their control, and the Board is to apportion the same among the educational institutions and among individuals who may desire to pursue a course of dissection by themselves. It is understood that the Board will regard the claims of the colleges as entitled to the first consideration, but in case there is no dearth of material for the schools, individuals may profit by the facilities that will undoubtedly attend the working of the proposed act. This is an exceedingly good feature in the bill, and embodies a state of things that ought to exist everywhere. It is monstrous that in this State, for instance, a man can not get possession of any material for dissection, apart from a violation of the laws, unless he betakes himself to a medical college, a course that involves not only the disarrangement of his business affairs in many instances, but perhaps the impracticability of his carrying out a special and very important course of dissection, owing to the fact that he must accommodate his own actions more or less to the purposes of the undergraduates with whom he is obliged to prosecute his work. If the Pennsylvania bill becomes a law, we trust that the Board of Distribution, although made up entirely of public teachers, and, therefore, naturally disposed to

hold college interests as paramount to all others, will not fail to see the justice and the pressing need of facilitating private dissection under all proper circumstances.

As we understand it, there is to be no price put upon bodies—no traffic in them, and their conveyance without the limits of the State is prohibited. Every college and every individual supplied by the Board is to be required to guarantee, by filing a bond in the sum of a thousand dollars, that the material is to be used only for the promotion of medical science, and within the State. The violation of those provisions of the bill that forbid traffic in dead bodies, and carrying them outside the State, is to be deemed a misdemeanor, making the offender liable to a fine of two hundred dollars and imprisonment for the term of a year.

The bill affords a reasonable prospect that, should it become a law, we shall hear no more of a scarcity of dissecting material in Pennsylvania, for it makes all the unclaimed dead bodies in the State available, whereas at present, it is stated, only the bodies of persons who have died in Philadelphia County can be claimed for dissection. Moreover, the rural authorities will be saved the expense of burying paupers, and it is to be hoped that there will be no more desecration of cemeteries.

GÄRTNER'S CANALS.

In a recent number of the "Archiv für Gynäkologie," Dr. Kocks, of Bonn, states that in a majority of cases these remnants of embryonic life, which have hitherto been supposed to persist only in a few of the lower animals, remain patulous in the human female. Chauveau ("Comparative Anatomy of the Domesticated Animals," Fleming's translation, New York, D. Appleton & Co., 1873, p. 923) says concerning them, that they are developed from the Wolffian bodies, one portion of these bodies giving rise to the development of the genital organs, and the other portion to organs of which the significance is unknown—viz., the organ of Rosenmüller, and the canals of Gärtner, the latter being present in the cow and in the sow, rarely in the mare, and never in the sheep, goat, dog, or cat. He further remarks that in the cow they exist as mucous canals which traverse the sides of the vagina for a certain distance, and then open into the vulvular cavity beside the meatus urinarius; also that their function is unknown. Dr. Garrigues, in his report to the New York Obstetrical Society, as its pathologist, upon a vaginal cyst removed by Dr. Robert Watts ("N. Y. Med. Jour.," vol. xxxiv, p. 623), which he decides to be a cyst of Gärtner's duct, quotes the author just mentioned, from the third Paris edition (1879, p. 970), to the effect that the canal extends, in the vagina of the cow, to a point six to eight centimetres beyond the os uteri. In the same paper, Dr. Garrigues states that Gärtner's duct in the male develops into the long canal which runs through the epididymis and the vas deferens, but usually disappears in women. He quotes Kölliker, who had found distinct remnants of it in the broad ligament of mature human fetuses, and Beigel, who had found it in a seven-months fetus, in the form of small epithelial tubes running toward the side, and somewhat forward in the superficial layers of the wall of the uterus. Dr. Garrigues declared his inability to find a detailed description of this organ, and a similar lack of success has attended our own search. Kocks, in the article mentioned, states that the canal or canals have not been found heretofore, excepting among ruminants and swine. From his observations, however, upon the living and the dead, he is of the opinion that

they are present in eighty per cent. of women. Their openings are at the posterior border of the orificium urethræ, on either side of it, and anterior to the hymen. By delicate manipulation they can be discovered, and a fine sound, one millimetre in thickness, can be passed to a depth of from one half to two centimetres. One or both of them may be absent, or very shallow, in certain cases. If the urethra be cut out, in the dead subject, they can be seen with the naked eye. They must not be confounded with pockets or slight excavations in the urethro-vaginal mucous membrane, which are merely chance conditions, nor should they be confounded with the shallow openings in the mucous membrane of the vestibule, between the urethra and the vagina, and in the neighborhood of the hymen, into which the glandulæ mucosæ vestibuli open. The analogues to these canals in the male are the ductus ejaculatorii. The canals of Gärtner are not the ducts of glands, for, if they were, the glands would, of necessity, be large enough to be discovered by the finger in the anterior vaginal wall. They undergo atrophy and obliteration when similar changes occur in the generative organs.

The extent of Kocks's investigations does not appear. He states that he sought for the canals upon four dead subjects, and found them in each case; he fails to state the basis of his calculation that they are present in eighty per cent. of all cases. When we consider that pockets and excavations are very common occurrences in the urethro-vaginal mucous membrane, and in that of the vestibule, the existence of which is known to no one better than to the author in question (and, indeed, he has referred to them in his paper), we may be pardoned for being rather skeptical as to the constant, or nearly constant, existence of the canals of Gärtner. This skepticism becomes more warrantable from the fact that their existence has not been ascertained by such competent observers as Waldeyer, Frey, and Kölliker. We admit, however, that their analogy to the ejaculatory ducts lends probability to the statements which have been quoted. At any rate, they are without function, as Kocks observes, and the most that can be said of them is, that they are a possible anatomical treasure-trove, which merely adds a mite to the sum of human knowledge.

ILLUSTRATED MEDICINE AND SURGERY.

THIS is the title of a quarterly journal, edited by Dr. George Henry Fox and Dr. Frederic R. Sturgis, of New York, and published by Mr. E. B. Treat. The first number of the second volume is now before us, and we find its contents exceedingly valuable and presented in a style worthy of the standard maintained in the preceding volume. The number contains articles with the following titles: "Dental Development," by Dr. William Hailes, Jr., of Albany; "A Case of Palato-pharyngeal Sarcoma," by Dr. Johnson Eliot, of Washington; "Excision of the Shoulder Joint," by Dr. Randolph Winslow, of Baltimore; "Three Cases of Compound Complicated Hare-Lip," by Dr. James L. Little, of New York; "Cysto-adenoma of the Thyroid Gland," by Dr. Charles Buckley, of Rochester; "Secondary Myeloid Disease of Pleura and Lung," by Dr. William Osler, of Montreal; "Congenital Union of the Fingers, with two other Cases of Malformation of the Hand," by Dr. J. H. Pooley, of Columbus, Ohio; "A Teratological Contribution," by Dr. George J. Engelmann, of St. Louis; and "Apparatus for Treating Fracture of the Patella," by Dr. J. S. Wight, of Brooklyn. These articles are all illustrated, many of them with colored drawings, a method of illustration to which particular attention is given in the journal in question, and in which it has achieved marked excellence. Indeed, for its general artistic get-up, as

well as for the intrinsic value of its contents, "Illustrated Medicine and Surgery" deserves the substantial support of the profession.

Proceedings of Societies.

COLLEGE OF PHYSICIANS OF PHILADELPHIA.

Meeting of January 3, 1883.

OBSERVATIONS ON THE MANAGEMENT OF ENTERIC FEVER ACCORDING TO A PLAN BASED UPON THE SO-CALLED SPECIFIC TREATMENT.—Dr. JAMES C. WILSON read the following paper:

I desire to lay before the College a plan of managing enteric fever which I have employed during the past year, and which, tested by such uncertain but not necessarily fallacious means as are available for a limited series of cases, has yielded satisfactory results.

The object of this communication will, I believe, be best attained by first sketching in outline the plan of treatment itself, next by reviewing the considerations which led to its adoption, and finally by a brief study of the cases. This arrangement of the topics will enable us to economize time.

The Plan of Treatment.—The scope of this paper and the necessity to be brief debar me from the consideration of the general management of the patient, dietetics, the treatment of complications and sequels, and of the prophylaxis, and restrict me, in the main, to the subject of the management by medicinal means. It is, in fact, this part of the treatment that, superadded to the so-called rational and expectant method in general use in this community, differs from the common practice and constitutes the plan in question.

So soon as the patient is found to have enteric fever, or, in many instances, so soon as his symptoms warrant a reasonable suspicion that he is about to develop it, he is put to bed, ordered a diet consisting of milk, animal broths, jelly, and simple custards, in small amounts and at intervals of two or three hours. At night he is given a dose of calomel. This dose varies in amount from seven and a half to ten grains (0.5 to 0.66 gramme), and is repeated every second evening until three, or rarely four, doses have been administered in the course of the first six or eight days. It is given alone, or in connection with sodium bicarbonate. There is commonly a slight increase of diarrhœa, if it be present, without aggravation of the other symptoms, and in some instances the tendency of the temperature at this time to steadily rise appears to be controlled. If, as is frequently the case, spontaneous diarrhœa has not recurred in the first week, the calomel usually brings about two or three large evacuations on the day following its administration; not more. In either case the tendency to frequent passages in the later stages of the attack is favorably influenced by the repeated administration of this drug during the first week. If the case does not come under observation until after the tenth day, one only, or at most two doses of calomel are given. No further doses of it are, however, given during the course of the attack unless constipation occur. In this event, if the evidences of extensive or deep implication of the intestinal wall—such as abdominal pain, tenderness, or marked tympany—are absent, calomel in seven and a half grain (0.5 gramme) doses is given at intervals of three or four days. If there is reason to suspect serious intestinal lesions, the lower bowel may be more safely emptied of its contents every third or fourth day by enemata of moderate size (8 to 10 fluidounces). It is necessary to bear in mind that the gravest lesions of the gut, leading even to hæmorrhage and perforation, have occasionally been observed in cases characterized,

not only by constipation, but also by an entire absence of pain or tenderness, and very moderate tympany. The danger of salivation from calomel in these doses in enteric fever appears to be slight. In only one case in sixteen were the mercurial fœtor and slight swelling of the gums observed.

Excessive diarrhœa has been controlled by the use of opium, either in suppositories containing one grain (0.06 gramme), or by the mouth in quarter-grain (0.016 gramme) doses, often associated with bismuth and given *pro re nata*. It is an invariable rule that the patient be kept in the horizontal position and to the use of the bed-pan and urinal from the time of the recognition of the disease until defervescence is completed. He is, however, turned upon his side from time to time, and made to maintain that position for twenty or thirty minutes, if necessary, being supported by the nurse.

From the beginning of the attack the following mixture is regularly administered, in doses of one, two, or even three drops in a sherry-glassful of ice-water after food, every two or three hours during the day and night:

R Tinct. iodinii, f 3 ij = 8.00 c. c.;
Acid. carbolici liq. f 3 j = 4.00 c. c.

Unless some unusual circumstance occur to render a change necessary, this medicine is not suspended until the attack draws to a close. It is well borne by the stomach, and excites no repugnance on the part of patients. In one case only has it been necessary to omit the carbolic acid on account of the disgust excited by its odor.

Partly for the sake of its favorable influence upon the skin and for the sake of cleanliness, partly because of its favorable though slight influence upon the temperatare, the patient is to be sponged twice a day with equal parts of aromatic vinegar or alcohol and cold water. If it is more grateful to him, this sponging may be done with tepid water, the evaporation of an extensive film of water not below the temperature of his body probably being not wholly without a refrigerating tendency.

When the evening axillary temperature reaches 104° F. (40° C.), quinine in massive doses, 24 to 30 grains (1.66 to 2.00 grammes), is given upon a falling temperature. I usually direct 8 to 10 grains to be given in solution at 5, at 5.30, and at 6 A. M. the following morning. Administered thus at the decline of the temperature in its diurnal revolution, these large doses of quinine depress it from 2.5° to 3.5° F. (1.4° to 1.8° C.). After the lapse of forty-eight to seventy-two hours, if necessary, the dose may be repeated. If these doses be rejected by the stomach—an unusual circumstance—half the quantity of quinine may be administered hypodermically. For this purpose a citric-acid solution is to be preferred. Since the adoption of the plan of treatment under consideration, I have not encountered cases attended with such hyperpyrexia as has rendered attempts to control it by cold baths necessary or even advisable.

The minor nervous symptoms are best held in check by skillful nursing. For the relief of the headache of the first ten days, absolute quietude, a dim light, etc., are often sufficient; occasionally the bromides alone, or in combination with chloral, are required. Later in the course of the disease chloral is unsafe. From the end of the first week the patient can not be left unattended, even for a few minutes, without risk. Persons in whom delirium was only occasional and transient have, in many instances, destroyed themselves during the momentary absence of the nurse.

Alcohol is not often indicated prior to the beginning of the third week. It may, however, by reason of the habits of certain patients, be necessary throughout the attack. Although forming no essential part of the treatment, it is commonly administered in varying though usually small amounts toward the

close of the sickness. Some patients do well without taking it at all. It is, of course, administered, in accordance with well-understood indications, upon the supervention of delirium, ataxic symptoms, and the evidences of failures of the forces of the circulation. The patients are carefully watched well into convalescence, and cautioned against too soon regarding themselves as restored to health.

The dangers of the establishment of a focus of contagion are guarded against by the systematic, thorough disinfection of the stools immediately after they are voided.

The considerations which led me to adopt this plan of treatment, indicated in the foregoing sketch, are:

1. A feeling of dissatisfaction regarding the expectant method of treating enteric fever. This feeling, vague at first, grew more definite and stronger with increasing clinical opportunities, and a fuller knowledge of the natural history of the disease, until it became a motive, impelling me to cast about for some different and more satisfactory plan. This feeling has been during the past decade a very general one in the profession in all parts of the world, as is attested by an almost endless succession of journal articles setting forth new plans of treatment, and the use of new drugs in the management of this, the most common and most important of the acute infectious diseases of the present epoch in medical history. Most of the plans thus suggested have led to disappointment when tested by the fuller observations of the profession; many of them have failed to attract general attention, and some few are still *sub judice*. Their number and diversity bear witness to a widespread distrust of the once well-established expectant treatment. This distrust is, however, based upon something more tangible than a mere feeling of dissatisfaction. The statistics of all observers, whose cases have been sufficiently numerous to be trustworthy, show enteric fever to be, when treated by the expectant plan, a disease of high death-rate.

The proportion of fatal cases rarely falls below 15 per cent., and often exceeds 25 per cent., according to the hospital records of this country, Great Britain, and Continental Europe. Jacoud, with a collection of 60,000 cases, observed a mortality of 20 per cent.; Murchison, in 27,051 cases, 17.45 per cent.; Liebermeister, in 1,718 cases, at Basle, under an expectant plan, records 27.3 per cent. of deaths. But, turning from broad generalizations to personal experience, who is there here that, many times elated by the happy issue of mild or average cases treated by the expectant plan, has not realized the sense of utter powerlessness attending it when he has stood face to face with cases in which *to do* rather than *to wait* has been necessary to save life.

2. Enteric fever is the very type of the general diseases, of affections *totius substantiæ*. The tissues are universally implicated in the morbid processes; no function of the body wholly escapes perturbation. For this reason plans of treatment suggested by the prominence of certain groups of symptoms, or by the known lesions of particular organs, even though of undoubted benefit as far as they go, are in theory unsatisfactory, because they are directed in effect against conspicuous manifestations of the cause of the sickness rather than against the cause itself.

While in actual practice the treatment by turpentine, by alcohol, by opium with lead, or the silver nitrate, or by agents capable of controlling the febrile movement, as quinine, digitalis, salicin, and the salicylates, even the cold-water treatment itself, although at times and in the hands of certain clinicians showing favorable results—all these have failed of general acceptance on the part of the profession.

3. The general character of the disease, the specific nature of its cause, the unsatisfactory results alike of an expectant and

of a symptomatic plan of treatment, or rather of the two combined, have united to render the idea of a specific treatment, a true cure for enteric fever, a most attractive one, to stimulate thoughtful observers to renew again and again the disappointing search for it. To this idea may be traced the treatment by the mineral acids, by chlorine-water, by carbolic acid, by quinine alone, by quinine and digitalis, by iodine, by the potassium iodide, by calomel.

4. Not only is the conception of a specific treatment for specific diseases a most attractive one, and the attainment of such a treatment for enteric fever brought within the bounds of a reasonable hope by the analogy of syphilis and the malarial diseases, but the search after it with due caution and judgment has also the warrant of the very highest medical authority.

Passing by some earlier names, I refer to Da Costa, who has said: "It would be as illogical as absurd to suppose that we shall never possess the coveted means really to cure the continued fevers. Doubtless to the physicians of the time of Charles V the radical and specific treatment of the malarial fevers appeared as hopeless and remote as the radical and specific treatment of the continued fevers appears to the scientific inquirer of our day."

I refer also to Liebermeister, who, treating about eight hundred cases, part with calomel, part with iodine, had with the former drug a mortality of only 11.7 per cent., with the latter of 14.6 per cent., against 18.3 per cent. for cases treated without those remedies, but in other respects upon a similar plan.

Bartholow has also spoken in favorable terms of the treatment by iodine in combination with carbolic acid.

The treatment adopted is thus seen to consist of the use of the two remedies that are proved to exert a favorable influence upon the disease, iodine and calomel, with the addition of carbolic acid in minute amounts. I am aware that no positive conclusions as to the efficacy of particular plans of treatment can be deduced from a limited series of cases. I am also aware that few acute diseases show greater variations in intensity and in the percentage of mortality at different periods, and under different circumstances, than enteric fever. Nevertheless, I have ventured to occupy your attention with this subject to-night because the results of the treatment encourage me to hope that its discussion in this way will lead to its trial on a more extended scale. That it amounts to a specific treatment in the narrow sense is not affirmed. It is tentative, provisional, but it is nevertheless to be regarded as a contribution to the subject of the specific treatment of enteric fever.

The *total number of cases treated* by this plan is sixteen; all recovered, one being now in the second week of convalescence.

Of these, eight were severe, the temperature reaching or exceeding 104° F. (40° C.).

Of these eight severe cases, one was characterized by uncontrollable vomiting in the third week. The patient retained no food taken by the mouth for five consecutive days.

One case was very irregular in its course, and was complicated by an obscure abdominal abscess which discharged by the bowel. The temperature in this case on two occasions attained 105° F. (40.5° C.). This case presented the characteristic eruption of enteric fever.

A third case was prolonged by a severe relapse.

Of the eight cases in which the observed temperature did not at any time attain 104° F. (40° C.), and which were therefore looked upon as medium or mild cases, one was complicated by crural phlebitis, and another by the occurrence of intestinal hæmorrhage.

The average duration of the eight severe cases was about thirty-one days; that of the eight mild and medium cases was about twenty-five days.

Of the whole number, ten were treated in hospital, six in private practice. All, from the first, were under my personal care.

In two cases the special plan of treatment was abandoned about the beginning of the third week on account of the super-vention of unusual symptoms of great gravity. These related, respectively, to gastric irritability, and an obscure abdominal abscess.

These sixteen cases are, unfortunately, not a consecutive series. During the year in which I have had the opportunity of observing them, two other cases of enteric fever have occurred in my hospital practice in which this plan of treatment was not employed. One was that of a man suffering from rheumatism, who, after a stay of several weeks in the wards, and in a bed near that occupied by a patient very ill of enteric fever, was observed to be febrile, and to have the typhoid eruption. This person, previously greatly reduced, was not regarded as a suitable subject for a special treatment, the efficacy of which was not yet established in my mind. The other was a man who, with an obscure history of a sickness of many weeks, and a very irregular temperature, developed the typhoid eruption, and within forty-eight hours had general peritonitis. These two fatal cases have, however, no bearing upon the result of the treatment.

In private practice several cases of mild continued fever of long duration were treated upon this plan during the past winter. I believe them to have been anomalous cases of enteric fever, but, as the rose spots of that disease were absent, and their departure from the typical disease was wide, I have not included them in the above collection of cases treated. They all recovered.

The result of this plan of treatment has not only been satisfactory in respect of the recovery of all the cases treated, an accidental circumstance not liable to mislead persons familiar with the disease, but it has also been satisfactory in respect of the general course of the attack, and the appearance of the patient. These were in the main, despite the severe type of the disease in several of the cases, and despite the occurrence of grave complications, favorable. I make this statement with due regard to the personal equation, and with no willingness to permit the observed fact to differ from the actual fact, for I desire any who may make trial of this plan to be more favorably impressed with the results of it than they have been impressed with my account of it.

Dr. GEORGE HAMILTON spoke of the great importance of preventing hypostatic congestion by changing the position of the patient from time to time. This was one feature of the plan of treatment recommended some time ago by Dr. William Pepper, in typhoid fever, by which he obtained the unequalled result of 98 per cent. of recoveries. He was not, however, at this time able to recall in detail the method of treatment.

Dr. J. T. ESKRIDGE stated that the treatment to which Dr. Hamilton referred consisted in the administration of nitrate of silver, and was that which had been introduced by the late Dr. J. K. Mitchell some years ago.

Dr. ROBERTS BARTHOLOW said that the plan of treatment of typhoid, advocated in the very interesting and able paper just read, is, as all present probably know, in part, the so-called "specific" method. The administration of calomel in full purgative doses during the first week serves a double purpose: it has an effect on the range of temperature, and it acts on the typhoid germs present and multiplying in the intestinal canal. The use of iodine—usually Lugol's solution—throughout the disease, is also one mode of the specific treatment. By the use of this medicine, it is attempted to prevent the multiplication of germs in the intestine, to check fermentation, and to maintain an antiseptic action in the blood.

Although the existence of typhoid germs has not been proved, it must be regarded as possible. Klein, a few years ago, announced the discovery of the specific organism of typhoid in the affected intestinal glands, but Creighton, of Cambridge, showed that the supposed germs were produced by the mode of preparation. This *fiasco* threw great discredit on the whole question of germs. Nevertheless, the course of treatment directed against supposed germs—the antiseptic method—has had a most favorable influence on the progress and mortality from typhoid. While the specific plan has been advocated in Germany, the Montpellier school have brought forward carbolic acid as the remedy, and the success which has attended the use of this remedy has been really remarkable. Quite a different complexion has been put on the statistics of mortality since they began the use of carbolic acid. It is probable that the combination of carbolic acid and iodine gives better results than the use of either singly. According to my observation, this method of treatment diminishes the diarrhoea, lowers the fever, and renders the disease much less violent, consequently lessening the mortality. Dr. Wilson has, therefore, rendered us a real service by drawing attention anew to this plan of medication, and especially by supporting his position with valuable cases and statistics. Besides this use of medicines, Dr. Wilson's treatment contains many valuable suggestions and practical methods, which, no doubt, contribute materially to his success.

Dr. J. M. DA COSTA spoke of the purgative treatment in enteric fever as that which had been tried in the French hospitals and for a time sanctioned by Louis. As regards calomel, it was partly by its purgative action that it was supposed to be beneficial. In his hands the calomel treatment had not yielded favorable results. He had found carbolic acid useful in controlling diarrhoea and in lowering the temperature. He had also employed thymol in one-half to one-grain doses. He suggested the use of this remedy in the place of carbolic acid, as more acceptable to the stomach.

Dr. WILSON, in reply to the question of Dr. Hamilton, said that he considered it necessary to frequently change the position of the patient to prevent pulmonary hypostasis. He had intended to emphasize this point in his paper. He called attention to the fact that carbolic acid and like drugs probably exert a favorable influence upon the course of enteric fever by their power to stay the rapid decomposition of the intestinal contents, which, for lack of the antiseptic influence of the intestinal juices, the bile, etc., all of which are changed, is a secondary cause of irritation, diarrhoea, and tympany. Calomel, also, he thought, probably exerted an indirect beneficial influence in the same direction.

HEART-PUNCTURE AND HEART-SUTURE AS THERAPEUTIC PROCEDURES.—Dr. JOHN B. ROBERTS read a paper on this subject as follows:

It is more than probable that, in a few years, puncture of the heart-wall (cardicentesis), with direct abstraction of blood by aspiration, will be recognized as the best treatment in cases of greatly dilated or much distended right heart, with intense pulmonary engorgement; and that incision of the pericardium with suture of the heart muscle will be accepted as proper in cardiac wounds. Hence, these latest novelties in cardiac surgery deserve the attention of the Fellows of the College.

That punctures of the heart are comparatively harmless has been well known to many for some years. In 1872, Roger, while performing pericardicentesis on a child with pericardial effusion, thrust the needle into the right ventricle and withdrew about 6½ Troy ounces (200 grammes) of pure venous blood. The boy, who was aged five years, became pale, sweated, and had an imperceptible pulse. The withdrawal of the pericardial fluid, accomplished prior to the heart injury, was beneficial; and the

cardiac puncture did no permanent mischief, for the patient recovered. Death occurred five months later from long-existing dilatation and valvular disease of the heart ("Bull. de l'académie de médecine," 1875, p. 1276).

In Hulke's case ("Trans. of the Clinical Society of London," viii, p. 169), a woman with pleuro-pneumonia was supposed to have large pericardial effusion, and a trocar was introduced through the fourth left intercostal space. Nothing escaped except a drachm of venous blood, after which the patient seemed relieved of dyspnoea. She died four weeks later from a complication of diseases, and the autopsy revealed cardiac dilatation and valvular changes.

I have said elsewhere ("Paracentesis of the Pericardium," 8vo, Philadelphia, 1880), in commenting upon this case: "The abstraction of blood seemed to relieve the distended heart much better than phlebotomy would have done, as was evinced by the diminution of threatening symptoms and the decrease of the area of dullness."

Cloquet, Bouchut, Legros, and Onimus have also observed the apparent innocuousness of wounds of the heart made by capillary trocars. Steiner found, ten years or more ago, that electro-puncture needles could be quite safely introduced into either ventricle, provided they were at once withdrawn ("Med. Times and Gazette," May, 1873, p. 492, from Langenbeck's "Archiv für klin. Chirurgie").

It has been considered less safe to puncture the auricles; but the interesting paper of Dr. Benjamin F. Westbrook, just published in the "Medical Record" for December 23, 1882, seems to show that our fears are as unfounded as were those of our predecessors in regard to ventricular puncture. It is, in truth, to call attention to his case of harmless *intentional* cardicentesis and to his researches in the surgical anatomy of the operation that I have been led to refer to the corroborative evidence of the cases mentioned above.

I have with much satisfaction, as have many others, done venesection at the bend of the arm for the temporary relief of the distressing symptoms of dilated heart, and for the dyspnoea due to the pulmonary engorgement of acute pneumonia. If, however, a few *drachms* of blood drawn directly from the heart give the relief that could only be afforded by taking a similar number of *ounces* from the veins of the arm, it seems proper to adopt the former measure. The subsequent circulatory depression from anæmia would undoubtedly be less than after the latter operation.

It is manifestly necessary, however, to determine that cardicentesis is innocuous before it can take the place of venesection. The above-mentioned cases and Dr. Westbrook's experience tend to show that such is the fact.

Dr. Westbrook believes that the proper place to perform the operation is in the third costal interspace close to the *right* edge of the sternum. This situation enables the operator to tap the right auricle without injuring the right internal mammary vessels, and with little danger of striking the tricuspid valve. My own preference would be to perforate the ventricle of the right heart by introducing the needle through the fourth interspace, about one and a half or two inches to the *left* of the median line of the sternum. Dr. Westbrook's opinion, however, is entitled to more deference than mine, because he has studied the subject with special reference to cardicentesis, while my special investigations have been limited to the consideration of pericardicentesis.

Further experimentation in heart-puncture for the relief of cardiac distension and pulmonary engorgement is requisite, but it is probable that it will soon become a well-recognized surgical procedure in selected cases. Pericardicentesis has already taken that position, and there is no reason to believe that cardiac

surgery will stop its march with the demonstration that the pericardium can be treated as the pleura.

In October, 1881, I read a paper before the Anatomical and Surgical Society of Brooklyn ("The Surgery of the Pericardium"; "Annals of Anatomy and Surgery," December, 1881), in which I advised resection of costal cartilage and incision of the pericardium for removal of foreign bodies in the pericardial sac; and at the same time said: "The time may possibly come when wounds of the heart itself will be treated by pericardial incision, to allow extraction of clots, and perhaps to suture the cardiac muscle."

It seems as if this time had now almost arrived, for Dr. Block has not only expressed a belief that death can be averted in many cases of heart-wounds by simple incision of the pericardium to allow escape or extraction of the clots which cause pressure and death, but has also undertaken to demonstrate by vivisectional experiments that suture of the heart is a simple operation, and requires but three or four minutes ("Am. Jour. of the Med. Sci.," Jan., 1883, p. 276; from "Journal de méd. de Paris," Oct. 28, 1882; from "Gaz. méd. de Strasbourg," Oct. 18, 1882). He finds that opening of the right and left ventricles, and entire compression of the heart for the application of sutures, can be supported by rabbits for several minutes. During suturing he seizes the apex of the heart and draws the organ forward until the traction prevents the escape of blood from the wound. Sutures are then introduced, or the orifice closed by ligation. Even if cardiac pulsation and the respiration stop during this mechanical interference with the heart's movement, death, he asserts, does not necessarily ensue.

These experiments are even more important than the researches spoken of in regard to heart-puncture. I regret that as yet I have not been able to consult Dr. Block's original memoir, but I hope at a future time to do so, and perhaps to be able to report some investigations of my own which I desire to make in the same direction.

The annual reports of the standing committees were then presented.

The Publication Committee reported a larger contribution of interesting papers to the forthcoming volume of "Transactions" than has ever been made before.

The Library Committee reported that the library contains 23,653 volumes, of which 15,901 belong to the general library, 6,208 to the "Lewis Library," and 1,544 are duplicates. During the year 1882, the additions to the library amounted to 1,234 volumes. A complete card catalogue of authors and subjects has been made of the "Lewis Library," and that of the general library is well advanced. The library of the late Dr. H. Lenox Hodge, containing 1,665 volumes, is deposited with the College in trust. The constant and rapid growth of the library obliged the committee to urge a liberal appropriation for the extension of the shelf room and the payment of the librarian and the assistant charged with preparing the catalogue. Next to the library of the Surgeon-General's office, that of the College of Physicians of Philadelphia is the largest medical library in the United States.

The Mütter Museum Committee urged the necessity of providing increased accommodation for the museum.

During the last year a large number of valuable preparations have been received:

From Framond, of Paris, 100 wax specimens illustrating diseases of the eye; 22 preparations (natural) showing dentition from early life to old age; 20 casts of female pelves taken from noted cases of deformity; 1 large wax model of thoracic duct and lymphatics; 2 rubber models of pelvic viscera, male and female; 1 wax preparation of confluent small-pox; 1 wax preparation of syphilitic disease of scalp; 4 natural lymphatic injections

of foot, hand, and stomach, also an injection of the canal of Fontana; and 1 adult skeleton, mounted at Royal College of Surgeons, London.

They have also received from Rohon, of Vienna, six mounted skeletons, illustrating stages in development, with known age and history to each.

They have procured and had mounted the skeleton of a noted case of hydrocephalus.

Also, through Dr. Hays, the committee obtained the body of a cyclops, which was dissected and reported upon by Drs. R. Meade Smith and A. J. Parker (see "American Journal of the Medical Sciences" for July, 1882). A good plaster cast and two drawings were made from it. Other preparations of importance were also received.

The Committee on the Directory for Nurses reported that the Directory was opened May 15, 1882. Rooms for the secretary were fitted up, and the telephone and telegraph introduced. Circulars and blanks to the number of 8,500 were prepared and widely distributed to all the physicians in Pennsylvania, New Jersey, and Delaware, and to the summer hotels within easy reach of this city. The co-operation of the two training-schools for nurses (the oldest two in the country) was secured, and the medical and daily press of the city showed a very friendly spirit, and assisted us in making the Directory known. The following are the rates of charge adopted: For information leading to the engagement of a nurse between 7 A. M. and 6 P. M., one dollar; between 6 P. M. and 10 P. M., two dollars; between 10 P. M. and 6 A. M., three dollars; for wet nurses, uncertified, five dollars; for wet nurses, certified (after careful medical examination of mother and child), ten dollars; for finding and sending a nurse, an additional dollar. Up to December 1st, the number of applications for registration has been 296. Fully registered, 214; approved and awaiting registration, 17; disapproved, 19; stricken from the roll for grave faults or defects, 2. Of the registered nurses there are 26 males and 187 females; 35 graduates of training schools; 165 non-graduates; manipulators, male and female, 11; cuppers and leechers, 3.

The number of calls for nurses has been 342 during the seven months, an average of about 50 a month. We have furnished as many as 8 in a day, and 5 to a single family. One of the most important results achieved through the Directory is the promptness with which calls to grave emergencies are met. Another and very marked advantage of the Directory is, that we not only give information as to disengaged nurses, but, if desired, will find and send them to the patient. This saving of time and trouble to applicants is often very desirable, and the small extra fee charged for the service (one dollar) is very gladly paid. Especially is this service valuable to patients out of the city.

We have also undertaken to supply wet nurses. We have had 35 applications, but have only been able to supply 13, and we beg especial attention to this fact, in order to obtain many more of this class of nurses.

Our expenses have exceeded our income by a very large amount, and had it not been for the generous contributions of many friends, chiefly through Mrs. Weir Mitchell, the Directory could not have been placed on a firm foundation at its start. Next year it is hoped that it will be about self-supporting.

"PUNCH" ON OLIVER WENDELL HOLMES.—"Punch" thus addresses Dr. Holmes on his retiring from the chair of anatomy in Harvard:

"Your health, dear 'Autocrat!' All England owns
Your instrument's the lyre, and *not* 'the Bones.'
Yet hear our wishes—trust us they're not cold ones!
That, though you give up bones, you may make old ones."

Reports on the Progress of Medicine.

QUARTERLY REPORT ON DERMATOLOGY, SYPHILOGRAPHY, AND GENITO-URINARY DISEASES.

No. XIII.

By EDWARD BENNET BRONSON, M.D.

THE CONTAGIOUSNESS OF LEPROSY.—Dr. J. C. White, of Boston, after an able and thorough-going review of the question of contagion in leprosy (*"Am. Jour. of the Med. Sci.,"* Oct., 1882), arrives at an affirmative conclusion, in accordance with which he urges certain public measures of prophylaxis. He advises "the establishment of graded hospitals, if possible, in insular localities in various parts of the country, to which all access should be prevented excepting under restrictions determined by professional rules; the enactment of laws which should make residence compulsory and perpetual, and the concealment of the disease punishable by severe penalties." These laws should apply equally to sporadic, to endemic, and to imported cases, though in the case of foreigners the option should be given of a return to their own land. It is also advised that the importation of lepers be prohibited. Dr. White avows his belief in the "*bacillus lepræ*" of Hansen, Neisser, Koch, Koebner, Cornil, Berman, and others, regarding it as the essential cause of the disease.

On the other hand, Schmidt, in a recent paper (*"Chicago Med. Jour. and Exam.,"* April, 1882), took decidedly the opposite view. In the specimens which he examined he was unable to find any bacteria in the interior of the tissues. He found the micrococcus *zöögloea* described by other investigators, in his sections, but always upon the surface, where he believed they had lodged after removal from the body.

LEPROSY AMONG THE ZULUS.—Merensky (*"Arch. f. path. Anat. u. Physiol. u. f. klin. Med.,"* lxxxix, 1, 1882), in traveling through Southern Africa, made some interesting observations of the leprosy that prevails among certain of the Zulu tribes. In one tribe he examined six lepers with a view to ascertaining the etiology of the disease. In this instance the origin of the epidemic appeared to be clearly traceable to an individual who had entered the tribe (coming from another region) some twenty years before. This individual had leprosy, and was the first case of the disease that had ever been seen in the tribe. All the cases which had occurred subsequently were in persons more or less directly connected with him by marriage and otherwise. It is stated that leprosy prevails in a number of the Zulu tribes inhabiting the region of the Drakenberg Mountains. The Zulus in these parts generally regard it as contagious. The name they give to it, on account of the spots that appear, is "*ubadeka*," from "*ukubadeka*," which by an euphemism might be translated "with ordure soiled" ("*mit Koth bewerfen*," according to Merensky).

RODENT ULCER.—There has always been more or less uncertainty regarding the relations of this disease to epithelioma. It has been recently stated by Sangster (*"Brit. Med. Jour.,"* Oct. 21, 1882) that two very marked factors in the pathological anatomy of the latter disease are in rodent ulcer "conspicuous by their absence." In epithelioma there is a very characteristic activity of the Malpighian layer. The inter-papillary portions form prolongations that dip down farther and farther into the tissues. The other factor is the production of the well-known cell-nests, or "*globes epidermiques*." In five cases of rodent ulcer which Sangster submitted to careful microscopical examination, neither of these two phenomena appeared. The rete was usually thin and attenuated, never attaining any greater thickness

than in any chronic inflammatory process. In only two of the five cases was there anything like cell-nests, and those were not well marked. Evidence was discovered, however, of connection of the disease with the hair follicles. There were decided outgrowths from the external root-sheaths. Reference is made to certain "cell-masses, with peripheral, columnar, and vertically placed cells very similar to those seen in molluscum," which Virchow had shown to be connected with the hair follicles.

CHRYSOPHANIC ACID INTERNALLY FOR PSORIASIS.—In a recent communication to the "*Lancet*," Canty reported three cases of psoriasis treated by the internal administration of chrysarobin without noticeable effect upon the cutaneous disease. In one case the dose was increased to one grain and a half three times a day, but it was not tolerated. The opinion is expressed that, in the cases previously reported where this method of treatment had been successful, the improvement was due to the continuous purging, and that some other cathartic would have accomplished the same result and with less disagreeable consequences. Canty is of the opinion that any internal remedy that benefits psoriasis must improve the quality of the pulse, making the rather positive statement that "no case of this disease occurs in which the pulse is not either slower, smaller, or weaker than it ought to be, and any medicine which either ameliorates or cures this disease improves the pulse in either rapidity, volume, or strength"—a statement that we do not remember to have met with before.

ICHTHYOL.—In a late number (Dec., 1882) of the "*Monatshefte für praktische Dermatologie*" are two contributions—one by Rudolf Schröter, the other by Unna—relating to a new remedy for skin diseases. The article by Schröter relates the history of its discovery and describes the method of its preparation, while Unna gives an account of how it is employed and of its effects upon diseases of the skin.

Ichthyol is an oily product obtained from a peculiar bituminous mineral found in the region of Seefeld in the Tyrol. The mineral occurs in beds or veins of varying thickness, lying in fossiliferous rock, which bears numerous fish-prints, together with a certain number of petrified fishes. It has been surmised that the bitumen owed its origin to the animal residue of fishes and other marine animals left there in prehistoric times, when the region was still submerged by the sea. Hence the name "*ichthyol*." To obtain the oil, the bituminous rock is first subjected to a dry distillation in iron retorts. The fluid product that results soon separates spontaneously into a thick, tarry substance, and a very fluid, dark-colored, strong-smelling oil. The latter is then subjected to the action of concentrated sulphuric acid and various other chemical processes, by means of which it is clarified and refined, when a neutral or slightly alkaline product results, having a peculiar odor described as "*kräuterartig*" (herb-like). This product, which is what is known as ichthyol, is regarded as an extract from the original oil. Its chief ingredient is said to be a sulphur acid. Sulphur forms from two and a half to ten per cent. (according to the method of preparation) of its composition. In appearance it is of a somewhat tarry character, but resembles none of the ordinary tars either in its odor or in its chemical composition. Its consistency is about the same as that of vaseline. It forms an emulsion with water, and is miscible in any proportions with oils or vaseline. It is partly soluble in alcohol and partly in ether; wholly so in a mixture of both.

Unna maintains that the efficacy of ichthyol as a topical agent in skin disease—and this efficacy he has found to be very considerable—is chiefly due to the sulphur which it contains. He regards the drug as essentially an artificial production, and refers to the fact that the chemical treatment by which it is produced increases the proportion of sulphur from two or three

per cent. to about ten per cent. Moreover, there is a marked increase by this same means in the proportion of oxygen. He considers ichthyol as resembling a ten-per-cent. sulphur ointment, but differing from the latter in that the sulphur is in a very intimate chemical union with the other ingredients.

Unna made his first trial of the drug in a case of universal psoriasis. One arm was treated with chrysarobin, the other with ichthyol. At first the latter appeared to be having the most rapid effect, but afterward, when the chrysarobin had fairly begun to act, the ichthyol was shown to be so decidedly inferior that it was abandoned entirely, and the chrysarobin was applied to both sides. But it was discovered that ichthyol, though applied for a long time continuously, even in its purity, to the skin never caused any signs of eczema, as would invariably be the case were a ten-per-cent. sulphur ointment applied in the same way. This led to the employment of the new remedy in eczema. Unna refers to thirty cases that he has treated with ichthyol with very decided success. The eczemas treated were of many varieties—both moist and dry, papular, squamous, circumscribed, and diffuse, and were confined to no particular region of the body. The drug was employed in the form of a salve, varying in strength from five to ten, fifteen, and twenty per cent.; also it was used pure or in the form of spray from a solution in alcohol and ether. The pure form is not recommended, however, but a fifty- or forty-per-cent. solution in vaseline or lard is preferred for adults, while from ten to two per cent. is considered strong enough for children.

It is advised that, commencing with an ointment moderately strong, the strength be gradually decreased as the case improves, since otherwise the ointment, after a time, tends to retard the progress of the cure. Moreover, the condition of the cuticle is said to afford a criterion for the strength of the application. For example: if in a papular eczema a fifty-per-cent. ichthyol salve answers the purpose, in a moist, abraded eczema a strength of not over twenty or thirty per cent. will be required. In general, the more intact and the thicker the cuticle, the stronger must be the ointment. The chief virtues of ichthyol are stated to be as follows:

First, it tends largely to relieve smarting and itching, combining the good qualities of both Hebra's (diachylon) and Wilson's (zinc oxide) ointments on the one hand, and those of carbolic acid and tar on the other.

Second, it offers this advantage over all other sulphur preparations, namely: that it may be combined with lead and mercurials without any separation of sulphur taking place.

The following combination is recommended:

R ^x	Lithargyri	10.
	Coq. c. aceti	30.
Adde		
	Olei olivæ, adipis, aa,	10.
	Ichthyol.	10.
	M., ft. ung.	

Inasmuch as this ointment forms an emulsion with water, it is very easily removed from the skin. The disagreeable odor of the ichthyol has not yet been overcome.

Aside from eczema, Unna is of the opinion that the new remedy will be found valuable in all cases where sulphur preparations have heretofore proved themselves valuable. With reference to the internal exhibition of ichthyol there have been as yet no satisfactory investigations.

NERVE-ENDINGS IN THE EPIDERMIS.—That the cutaneous nerves do not all stop at the epidermis has long been well known. It was first demonstrated in lower animals that many nervous filaments penetrated the epidermis, where they terminate in club-shaped extremities. Similar facts were afterward shown

to obtain in the case of the human skin. But quite recent investigations have revealed a nervous distribution in the epidermis of an extent far beyond anything suspected before. Pitzner described ("Morphol. Jahrb.," Bd. vii, p. 726) nerves in the epidermis of the larvæ of the frog and salamander, at a certain period of development, that terminated after penetrating the cell-wall of each prickle cell, with small bulbous extremities near the nucleus. Every cell contained two of these terminal filaments. Afterward the same observation was made by Pitzner in the epidermis of the human subject.

Unna, pursuing this line of investigation, has recently ("Monatsh. f. prakt. Dermatol.," Oct., 1882) fully corroborated Pitzner's results. His paper is accompanied with photographs, in which the appearances are very clearly exhibited. A striking feature of the appearance is the invariable association in every cell of the terminal bulbs in pairs. They did not appear to be branches of one twig, but usually approached the cell from different directions. These researches, revealing as they do such a surprising organization of the nervous system in the epidermis, will doubtless be found to have very important bearings both upon the physiology and pathology of the skin.

THE CUTANEOUS MANIFESTATIONS OF PALUDISM.—In a paper on this subject by Verneuil and Merklen ("Ann. de dermat. et de syphil.," Nov., 1882), the following are the conclusions arrived at:

1. Herpes is one of the common manifestations of malarial disease.

2. It may either precede the paroxysm of intermittent, or occur during any one of the three stages of the paroxysm, or it may follow the stage of sweating. It may appear even after the paroxysms of the fever have been suppressed by means of sulphate of quinine. There is no etiological connection between the herpes and the fever, notwithstanding their frequent coincidence.

3. Paludic herpes does not present any peculiar features. Its most common locations are the face, the region about the lips and nostrils, the eyelids, the cornea, and such points as are most abundantly supplied with nerves. Though ordinarily discrete, in certain epidemics the eruption presents a remarkable tendency to confluence.

4. Black crusts, or, more especially, black vesicles attending the herpes, pertain to grave and pernicious forms of malarial fever.

5. Exceptionally, the herpes of malaria takes the form of zoster.

6. The ordinary forms of malarial herpes may be preceded by and accompanied with vaso-motor disturbances upon the surface of the skin and disorders of sensibility.

It is believed, in consideration of the habitual locations of the eruption, of its concomitant disorders, of its possible appearance in the absence of a febrile attack, that the cause of the disease is referable to a nervous lesion, perhaps to a congestion of the cutaneous nerve-branches, resulting from the localization of the malarial poison in these nerves.

SALICYLATE OF SODIUM FOR EPIDIDYMITIS.—Dr. Henderson, of Shanghai, relates the histories of three cases of epididymitis treated with apparently remarkable effect by salicylate of sodium ("Lancet," Dec. 16, 1882). The treatment was suggested by the speedy relief afforded by this drug in acute articular rheumatism. In all the three cases described, the inflammation was of a high grade, and attended with considerable fever. The remedy was given in 20-grain doses, repeated at intervals varying from one to three hours. It is advised that it be repeated hourly till at least three doses have been taken, and that it should only be employed in cases of decidedly acute character, as evinced by a distinct rise in temperature.

The well-known effects of salicylic acid and its salts as vas-

cular sedatives furnish a very fair *rationale* of the results the writer reports, and entitle his experience to further consideration. Our anticipations, however, would be more sanguine but for the indifferent success that has attended the trial of certain other remedies vaunted as speedy cures for orchitis.

Other Noteworthy Papers.

- ATKINSON, I. E.—The vesicular and bullous forms of erythema exudativum multiforme. "Med. News," Dec. 2, 1882.
- BLACK, D. C.—Remarks on prostaticorrhea. "Lancet," Oct. 14, 21, 1882.
- BROCQ, L.—Note sur l'anatomie pathologique de la dermatite exfoliatrice généralisée. "Ann. de dermat. et de syphil.," Oct., 1882.
- BROWN, J.—A case of organic stricture of the pendulous portion of the urethra; urethrotomy; death twelve days after the operation. "Maryland Med. Jour.," Nov. 15, 1882.
- DIDAY, P.—Contribution à l'histoire naturelle de la syphilis: complément d'une statistique de syphilis mercurialisées et de syphilis non mercurialisées à leur début. "Ann. de dermat. et de syphil.," Oct., Nov., 1882.
- EKLUND, A. F.—Note sur les microbes de la blennorrhagie. *Ibid.*, Oct., 1882.
- LEWINSKI.—Ueber Urticaria pigmentosa. "Arch. f. path. Anat. u. Physiol. u. f. klin. Med.," lxxxviii, 3, 1882.
- SEVESTRE.—Orchite dothiéntérique. "Union méd.," Nov., 1882.
- STILLING, H.—Ueber die syphilitische Osteochondritis der Neugeborenen. "Arch. f. path. Anat. u. Physiol. u. f. klin. Med.," lxxxviii, 3, 1882.
- STRAUB, T.—Die Trichterdrainage. Eine Methode zur operativen Entleerung von Hautödemen. "Centralbl. f. klin. Med.," Oct. 7, 1882.
- V. SIGMUND.—Ueber die Dauer der allgemeinen Behandlung der Syphilis. "Wien. med. Woch.," Nov. 25, Dec. 2, 1882.
- WILE, H.—Some notes on the histology of lupus vulgaris, "Arch. of Dermat.," Oct., 1882.

Letters to the Editor.

STATEMENTS CONCERNING THE NEW CODE.

BROOKLYN, March 7, 1883.

To the Editor of the New York Medical Journal:

SIR: I have just noticed a letter in the number of your journal for January 13th, signed "Truth" and headed "Misstatements concerning the New York Code." Anonymous communications are entitled to but little consideration, but this one reiterates unwarrantable statements which have been made so often in the editorial columns of the medical press and in oral discussions, that it seems proper they should be corrected.

"Truth" denies that the report of the Committee on the Code of Ethics "was sprung on the society without notice." "The facts are," he says, "that the report of the committee was printed in advance of the meeting, and a copy was furnished to each member in attendance prior to the session at which it was acted upon, thus permitting all to thoroughly acquaint themselves with its nature." This statement, unintentionally I hope, gives a false impression. A fair interpretation of the statement implies that the report was printed and distributed to the delegates and permanent members of the State Society *some time prior* to the meeting at which it was acted upon, "thus permitting all to thoroughly acquaint themselves with its nature." The real fact was that the nature of the new code, as prepared by the Revisionary Committee, was unknown, except to the committee and three or four others, until it was sprung upon the members just before the meeting began.

"Three or four days before the session of 1882 the writer received from a member of the committee a copy of their printed report, with an injunction to keep it strictly private, as it had been shown to only two or three persons outside of the committee" ("Ephemeris," January, 1883). The writer of this letter secured a copy of the new code at the same time, with the same injunction of secrecy, from a valued friend, a member of the committee. What this extreme privacy meant is known only to the committee, and they have made no explanation of it. I have been informed by many prominent members of the society that they were ignorant of the matter until the report was presented and pressed upon the society for immediate action; that, had they known the committee proposed in their report to emasculate the code, instead of following the instructions of the society to *revise it*, they would have been present at any sacrifice, and the code question would not now be agitating us, for the vote at the meeting this year indicates that the proposed change would have been defeated at the previous meeting.

Your correspondent "Truth" is greatly disturbed that a "manufacturing pharmacist" should be one of the prominent objectors to the new code. It is not a little surprising that Dr. Squibb's stalwart, logical, and temperate defense of the life and honor of the profession has only been met by innuendoes unbecoming members of an honorable profession. Although he is not now an active practitioner of medicine, he has adopted pharmacy as a medical specialty, and his opinions are, to say the least, entitled to as much consideration on all questions concerning the medical profession as those of any specialist in diseases of the eye, the ear, the skin, or syphilis, and it is known to his more intimate associates that no man among us is so frequently consulted in questions of therapeutics by physicians in all parts of the country. Beginning his professional life as a Demonstrator of Anatomy and Clinical Assistant to the late Professors Meigs and Mütter, in the Jefferson Medical College, in which positions he distinguished himself, he subsequently entered the navy, high on the list, and, during his more than ten years' service, contributed to the journals valuable papers upon medical and surgical subjects. In the city where he resides he is not a mere "manufacturing pharmacist," but is frequently invited to act as a consultant in important medical and surgical cases by the most eminent practitioners among us. You have truly said, Mr. Editor, that "Dr. Squibb's devotion to the interests of the profession and his knowledge of what those interests involve are not exceeded by those of any other man."

Away with such puerile personalities, my new-code friends. They are "unworthy a physician and a gentleman." Seek more logical—I had almost said more honorable—methods for counteracting the influence of a man whom even his opponents delight to honor, than by mud-slinging. His friends must not allow him to be misinterpreted, whether their action be grateful to him or not.

I must beg your pardon, Mr. Editor, and his, for noticing these contemptuous flings.

"To gild refined gold, to paint the lily, . . .
Is wasteful and ridiculous excess."

JOS. C. HUTCHISON.

THE NEW YORK INFANT ASYLUM.

NEW YORK CITY, March 6, 1883.

To the Editor of the New York Medical Journal:

SIR: Will you kindly publish the following statement of facts and oblige the undersigned:

The New York Infant Asylum was incorporated as a foundling house, by act of Legislature, in 1865. Its charter was amended in 1872, for the purpose of allowing the Board of Managers "to provide such lying-in wards and methods of care and guidance as shall tend to prevent the maternal abandonment of homeless infants, and diminish the moral dangers and personal sufferings to which homeless mothers are exposed."

The Maternity Department is open only to needy women of the city and county of New York, of previously good character.

The Board of Managers has for many years intrusted the sanitary and medical care of the inmates to a "Medical Committee," constituted

in accordance with Section V, Article III, of the By-Laws, viz.: "The Medical Committee shall consist of the *Medical Members of the Board*, whose duty it shall be to exercise a careful supervision over the sanitary condition of the Asylum, including all matters pertaining to the health of the inmates."

The results of the work of this committee have been regarded, year by year, by the Board of Managers, as creditable both to the Asylum and to the committee

The President, Mr. Clark Bell, in the annual address in January, 1880, says: "The Medical Department is in excellent shape, and the results show how well and ably the medical gentlemen have discharged their duty, and how much the welfare of the inmates is indebted to their self-sacrificing labors." In the annual address in January, 1881, the President says: "The Medical Department is still in substantially the same hands, and the results of the last year may properly be considered as the best possible testimony to the excellence of this department." In January, 1882, the President states, in the annual address, that "The Medical Department is still in substantially the same hands. . . . The analysis of these reports (the medical reports of the various branches) shows that the death-rate of this institution still continues to be below that of any similar institution in the world, so far as it has come to the knowledge of your officers."

The medical statistics for the year 1882 are as favorable as those of any previous year, and the results of the work of the Medical Committee for that year would have warranted upon the part of the President a statement similar to those made in the annual addresses quoted above.

At the annual meeting of the Board of Managers, held in January last, however, the President (having already, by an unusual method of procedure, added ten new names to the list of managers, which for a long time had contained only nineteen names) recommended that Section V, Article III, of the By-Laws (cited above) be amended, so that any five physicians whom the Board should designate should become the Medical Committee. This amendment was passed, in direct violation of the provision of the By-Laws regulating amendments, notwithstanding the protests of members.

Then the following resolutions were offered, viz.:

"*Resolved*, As the sense of this Board, that the interests of the Asylum require a revision and reorganization of the Medical Department; that visiting and consulting physicians should be selected from the ablest professional names; also orthopædic, ophthalmic, general and consulting surgeons, with proper representation upon the Medical Board.

"*Resolved*, That the President (Mr. Clark Bell) be instructed to appoint suitable persons for such medical services, and that in selecting the Medical Board, or committee, care be taken that the medical staff have proper representation thereon."

No reasons of any moment were offered in justification of the proposed change, and, although the medical members strongly opposed the action and referred to their records as conclusive evidence against the passage of the resolutions, they were, nevertheless, declared by the President to have been adopted. The majority necessary for the passage of these resolutions was obtained by the votes of gentlemen who had never before attended a meeting of the Board of Managers. All of the above measures were taken without any previous consultation with any of the physicians of the Board, and without any previous knowledge upon their part of any such action being intended.

In accordance with the provisions of these resolutions, the President offered various positions upon the medical staff of the Asylum to physicians of the city, who were, of course, ignorant of the circumstances surrounding the case. Some of the positions were accepted, others were declined; these latter have been tendered to physicians in turn, until, at length, the President seemed to regard his staff as complete, and issued a printed circular containing the names, etc., of the appointees. Some of the physicians whose names appear in the list had declined to accept the positions when offered them; and others, upon learning the facts as above set forth, resigned their places.

It would be absolutely false to assert that the needs of the Asylum had made necessary any radical change in its medical management.

Thus it is seen that the medical service of a worthy public charity

during many years has been satisfactorily administered by the physicians to whom it has been intrusted; and, also, it is apparent from the foregoing statements that this department has been, violently and without cause, wrested from the hands of those who have faithfully administered its affairs for the benefit of the patients, by persons who must have been from the nature of the case ignorant of the true requirements of the Asylum.

We lay these facts before the profession of the city, and ask whether such actions upon the part of a public charity toward its medical management should meet with the approval of the medical profession.

Yours, etc.,

JOEL FOSTER, M. D.,
WM. N. BLAKEMAN, M. D.,
FRED. A. BURRALL, M. D.,
E. A. GOODRIDGE, M. D.,
HENRY D. NICOLL, M. D.,

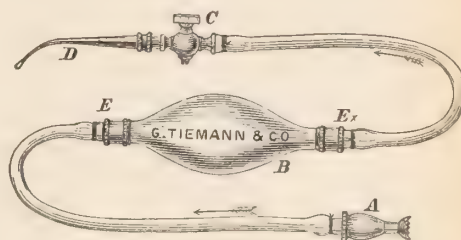
Members of the Board of Managers of the New York Infant Asylum.

New Inventions, etc.

A TRANSFUSION APPARATUS.

By HENRY J. GARRIGUES, M. D., NEW YORK.

THE accompanying cut represents the apparatus which I used in the case of gas-poisoning reported in the issue of March 3d of this journal. It is essentially a diminutive Davidson's syringe. It consists of two rubber tubes united by a rubber bulb (B). A is a tin plunger.



At E and Ez are cup-shaped valves, allowing the fluid to go in the direction of the arrows, but not backward. C is a stop-cock, which is closed when the apparatus has been filled with blood, in order to prevent any escape of blood through the nozzle, and consequent entrance of air into the syringe. When the nozzle has been introduced into the vein, the stop-cock is again opened. D is a nickel-plated cannula, which can be taken off in order to make thorough cleansing easier. It is flexible, and ought to be bent a little, which facilitates the introduction and protects the tissues against pressure. *It is a fault in the figure that the curve goes in the opposite direction to the head of the stop-cock; it ought to go in the same direction, as the stop-cock must, of course, point upward, and the posterior part of the cannula should be lifted up from the vein.*

The cannula is of very small caliber, in order that it may easily enter a collapsed vein. It is probe-pointed, in order to avoid puncturing the opposite wall of the vein. Finally, it is tapering, so as to fill up the small opening made in the vein, whereby loss of blood is avoided without the necessity of tying the vein to the cannula.

This apparatus is destined for *indirect transfusion*, which presents great advantages over the direct transfusion from arm to arm. The blood-donor need not see the patient, nor even enter the sick-room, where he sometimes faints. The patient need not see the donor, which, in case he or she is conscious, may not be desirable. No needle is introduced into the donor's vein, which is a more serious interference than simply to puncture it, and let the blood flow out.

It is by far safer to use defibrinated blood than the blood in its natural condition, when even very small clots may prove a serious danger to the patient's life.

No other kind of blood than that from a human being ought to be

used, since experiments (Landois, Panum, Ponfick) have shown that heterogeneous blood-corpuscles not only are destroyed themselves, but cause the destruction of the patient's own blood-corpuscles, and give rise to infarctus of the kidneys.

Human blood is the best of all substances to inject, and, in case of poisoning, as ours was, it is particularly indicated as carrying into the poisoned blood red-blood corpuscles filled with oxygen by the beating of the blood. But sometimes it is impossible to obtain human blood, and experience has shown that different substances, such as milk, peptone, and saline solutions may with profit be injected into the veins of man to obviate acute anæmia. It seems that the effect in these cases is due to the mere increase of bulk of the fluid circulating in the heart and the blood-vessels.

When blood can not be obtained, I should prefer a saline solution, as containing no foreign substances and no solid corpuscles, being always obtainable, and not liable to be decomposed. Table-salt is found in every house, and all that is needed is to inject a solution of one half per cent. of this substance.

Miscellany.

M. GAMBETTA'S EYE.—So many stories have been told concerning M. Gambetta's eye, says the "Lancet," that it becomes necessary to re-establish the true facts of the case. The most popular account is that M. Gambetta, when quite a boy, destroyed his eye because his father refused to take him away from school; and this is related as a proof of his determined character. This version has, however, the disadvantage of being absolutely false. The injury was due to an accident. A tool escaped from the hands of a workman in a turner's shop, and struck Gambetta in the face, blinding him in one eye. Gambetta was but a boy then. In the course of years the anterior part of the globe gradually dilated and became so large that he could no longer close the eyelids. In 1867 Gambetta was introduced, by his friend Dr. Fienzal, to the celebrated oculist De Wecker, who declared that the wounded eye must be at once excised. De Wecker describes the operation, which he performed, in the "Gazette hebdom. de méd. et de chir." Gambetta, who was then living in a very modest apartment in the Rue Bonaparte, displayed great fortitude. Ether was administered, and acted with exceptional rapidity; the operation was most successfully and promptly concluded. The eye, which was pear-shaped, had grown to double its normal size, and its antero-posterior diameter measured nearly five centimetres. In three days Gambetta was able to quit his bed, and he was very soon completely cured. De Wecker preserved the eye, but he ultimately lent it to the renowned histologist, Professor Iwanoff, remarking at the time that it was the eye of a man destined, he was sure, to enact an important part in the history of his country. Two years ago Professor Iwanoff died at Mentone, having still in his possession Gambetta's eye. This relic, together with Professor Iwanoff's collection, was handed over to his most devoted pupil, the Duke Charles of Bavaria, brother of the Empress of Austria and of the ex-Queen of Naples. Thus, the eye of the statesman and patriot who, as Dictator, contributed more than any one else to raise armies and resist the German invasion, is now in the hands of a German prince!

THE AYES AND NAYS ON THE NEW CODE.—A correspondent has furnished us with the following analysis of the recent vote on Dr. Squibb's resolutions to abolish the new code of the Medical Society of the State of New York, and assures us that it was made from an official copy of the vote furnished him by the Secretary, Dr. W. Manlius Smith. It will be seen that the new code had a majority not only of permanent members, but also of delegates.

In forty-one counties there were either permanent members or delegates who voted for the old code, while in twenty-eight counties there were those who voted for the new. The total number of counties in the State is sixty; of these, all but Cattaraugus, Delaware, Hamilton, Livingston, Richmond, Schoharie, Schuyler, Suffolk, Wayne, and Wyoming sent representatives who voted. The aggregate vote of

Kings County was twelve for the old code and five for the new; of New York, seven for the old code and thirty-seven for the new. In the two counties combined there were nineteen votes for the old code and forty-two for the new. Our correspondent remarks that these facts, shown by the subjoined list and table, effectually disprove some of the loose statements of one of our contemporaries as to how the new code is received by the profession throughout the State. It is seen that it has supporters in a large number of counties, and that Kings County and New York were by no means unanimous for its retention.

Ayes.

John G. Adams,	Del.,	New York Academy of Medicine.
Edwin Ames,	Del.,	Sherman, Chautauqua Co.
Judson B. Andrews,	P. M.,	Buffalo, Erie Co.
George W. Avery,	P. M.,	Norwich, Chenango Co.
W. L. Ayer,	Del.,	Owego, Tioga Co.
Alexander Ayres,	P. M.,	Fort Plain, Montgomery Co.
George M. Baker,	Del.,	Brooklyn, Kings Co.
Edwin Bonner,	Del.,	Pleasant Plains, Dutchess Co.
F. R. Bentley,	Del.,	Cheshire, Ontario Co.
R. B. Bontecou,	P. M.,	Troy, Rensselaer Co.
John C. Boyd,	Del.,	Monroe, Orange Co.
D. D. Bucklin,	P. M.,	Lansingburg, Rensselaer Co.
M. H. Burton,	P. M.,	Troy, Rensselaer Co.
John Byrne,	Del.,	Brooklyn, Kings Co.
A. M. Campbell,	Del.,	Mt. Vernon, Westchester Co.
J. C. Casey,	P. M.,	Mohawk, Herkimer Co.
William Chace,	P. M.,	Mayville, Chautauqua Co.
E. N. Chapman,	Del.,	Brooklyn, Kings Co.
James Chapman,	P. M.,	Medina, Orleans Co.
C. H. Chubb,	Del.,	Palenville, Greene Co.
Thomas B. Collins,	Del.,	Rochester, Monroe Co.
George W. Cooke,	P. M.,	Kingston, Ulster Co.
William S. Cooper,	P. M.,	Troy, Rensselaer Co.
A. J. Dallas,	P. M.,	Syracuse, Onondaga Co.
H. D. Didama,	P. M.,	Syracuse, Onondaga Co.
L. C. Dodge,	Del.,	Rouse's Point, Clinton Co.
C. E. Douglas,	Del.,	Constableville, Lewis Co.
George Douglas,	P. M.,	Oxford, Chenango Co.
J. C. Edson,	Del.,	Windsor, Broome Co.
E. D. Ferguson,	P. M.,	Troy, Rensselaer Co.
S. H. French,	P. M.,	Amsterdam, Montgomery Co.
T. R. French,	Del.,	Brooklyn, Kings Co.
P. R. Furbeck,	P. M.,	Gloversville, Fulton Co.
C. C. F. Gay,	P. M.,	Buffalo, Erie Co.
William Gillis,	Del.,	Fort Covington, Franklin Co.
J. W. S. Gouley,	P. M.,	New York, N. Y.
William Govan,	P. M.,	Stony Point, Rockland Co.
Caleb Green,	P. M.,	Homer, Cortland Co.
D. Guernsey,	P. M.,	Armenia, Dutchess Co.
A. Hasbrouck,	Del.,	Poughkeepsie, Dutchess Co.
H. C. Hendrick,	P. M.,	McGrawville, Cortland Co.
John H. Hinton,	P. M.,	New York, N. Y.
E. E. Houghton,	Del.,	Schenecas, Otsego Co.
B. L. Hovey,	P. M.,	Rochester, Monroe Co.
D. B. Howard,	Del.,	Warrensburg, Warren Co.
F. F. Hoyer,	Del.,	Tonawanda, Erie Co.
Jos. H. Hunt,	Del.,	Brooklyn, Kings Co.
Joseph C. Hutchison,	P. M.,	Brooklyn, Kings Co.
Frederick Hyde,	P. M.,	Cortland, Cortland Co.
A. P. Jackson,	Del.,	Batavia, Genesee Co.
Charles Jewett,	Del.,	Brooklyn, Kings Co.
H. O. Jewett,	Del.,	Auburn, Cayuga Co.
Thomas M. Johnson,	Del.,	Buffalo, Erie Co.
J. K. Leaning,	P. M.,	Fly Creek, Otsego Co.
Elias Lester,	Del.,	Seneca Falls, Seneca Co.
A. J. Long,	P. M.,	Whitehall, Washington Co.
E. M. Lyon,	P. M.,	Plattsburg, Clinton Co.
J. W. Moore,	Del.,	Cohoes, Albany Co.
J. C. Nelson,	P. M.,	Truxton, Cortland Co.

Robert Newman,	P. M.,	New York, N. Y.
C. E. Nichols,	P. M.,	Troy, Rensselaer Co.
S. E. S. H. Nott,	Del.,	Hamburg, Erie Co.
J. S. O'Hara,	Del.,	Utica, Oneida Co.
C. N. Palmer,	P. M.,	Lockport, Niagara Co.
H. C. Palmer,	Del.,	Rome, Oneida Co.
W. H. H. Parkhurst,	P. M.,	Frankfort, Herkimer Co.
S. H. Peck,	P. M.,	Ithaca, Tompkins Co.
William T. Plant,	Del.,	Syracuse Medical Coll., Onondaga Co.
Abiathar Pollard,	P. M.,	West Port, Essex Co.
Tabor B. Reynolds,	Del.,	Saratoga Springs, Saratoga Co.
Thomas F. Rochester,	P. M.,	Buffalo, Erie Co.
H. R. Rogers,	Del.,	Dunkirk, Chautauqua Co.
Zotique Rousseau,	Del.,	Troy, Rensselaer Co.
J. H. Saunders,	Del.,	Belfast, Alleghany Co.
B. A. Segur,	P. M.,	Brooklyn, Kings Co.
George Seymour,	Del.,	Utica, Oneida Co.
W. B. Seymour,	P. M.,	Troy, Rensselaer Co.
John P. Shaur,	P. M.,	Little Falls, Herkimer Co.
S. Sherwell,	Del.,	Brooklyn, Kings Co.
J. O. Slocum,	Del.,	Camillus, Onondaga Co.
George C. Smith,	P. M.,	Rondout, Ulster Co.
M. D. Spencer,	Del.,	Guilford, Chenango Co.
E. R. Squibb,	P. M.,	Brooklyn, Kings Co.
T. H. Squire,	P. M.,	Elmira, Chemung Co.
Thomas D. Strong,	P. M.,	Westfield, Chautauqua Co.
A. Walter Suiter,	Del.,	Herkimer, Herkimer Co.
Robert Thompson,	Del.,	Troy, Rensselaer Co.
J. B. Todd,	Del.,	Parish, Oswego Co.
Ely Van De Warker,	Del.,	Syracuse, Onondaga Co.
William F. Webster,	Del.,	Liberty, Sullivan Co.
J. E. West,	P. M.,	Utica, Oneida Co.
Francis V. White,	Del.,	New York, N. Y.
William T. White,	P. M.,	New York, N. Y.
J. S. Wight,	Del.,	Brooklyn, Kings Co.
P. M. Wise,	P. M.,	Willard, Seneca Co.
C. S. Wood,	P. M.,	New York, N. Y.
Wm. D. Woodend,	Del.,	Huntington, Suffolk Co.
C. C. Wyckoff,	P. M.,	Buffalo, Erie Co.
R. M. Wyckoff,	P. M.,	Brooklyn, Kings Co.
Total ayes, 99.		

Nays.

J. Q. Adams,	Del.,	Carmel, Putnam Co.
C. R. Agnew,	P. M.,	New York, N. Y.
W. T. Alexander,	Del.,	New York, N. Y.
E. Allison,	Del.,	Wayne, Steuben Co.
William H. Bailey,	P. M.,	Albany, Albany Co.
M. J. Baker,	Del.,	Hornellsville, Steuben Co.
Eugene Beach,	P. M.,	Gloversville, Fulton Co.
W. R. Birdsall,	Del.,	New York, N. Y.
J. R. Boulwan,	P. M.,	Albany, Albany Co.
F. G. Buckbee,	Del.,	Fonda, Montgomery Co.
W. M. Carpenter,	Del.,	New York, N. Y.
F. A. Castle,	P. M.,	New York, N. Y.
Walter B. Chase,	P. M.,	Albany, Albany Co.
William H. Craig,	P. M.,	Albany, Albany Co.
H. S. Crandall,	P. M.,	Leonardsville, Madison Co.
W. W. Crandall,	P. M.,	Andover, Alleghany Co.
F. C. Curtis,	Del.,	Albany, Albany Co.
C. L. Dana,	Del.,	New York, N. Y.
F. R. S. Drake,	Del.,	New York, N. Y.
Theodore Dimon,	P. M.,	Auburn, Cayuga Co.
Louis Elsberg,	P. M.,	New York, N. Y.
William S. Ely,	P. M.,	Rochester, Monroe Co.
J. D. Featherstonhaugh,	Del.,	Cohoes, Albany Co.
L. E. Felton,	P. M.,	Potsdam, St. Lawrence Co.
George H. Fox,	P. M.,	New York, N. Y.
Frank P. Foster,	Del.,	New York, N. Y.
Robert M. Fuller,	Del.,	New York, N. Y.

John Gerin,	Del.,	Auburn, Cayuga Co.
A. G. Gerster,	Del.,	New York, N. Y.
V. P. Gibney,	Del.,	New York, N. Y.
Emil Gruening,	Del.,	New York, N. Y.
Alexander Hadden,	Del.,	New York, N. Y.
A. D. Head,	Del.,	Eaton, Madison Co.
C. R. Heaton,	P. M.,	Owego, Tioga Co.
B. L. Holt,	Del.,	Penn Yan, Yates Co.
H. R. Hopkins,	Del.,	Buffalo, Erie Co.
Joseph W. Howe,	Del.,	New York, N. Y.
Lucien Howe,	Del.,	Buffalo, Erie Co.
Thomas Hun,	P. M.,	Albany, Albany Co.
Jacob Hunt,	P. M.,	Utica, Oneida Co.
James C. Hutchison,	P. M.,	Troy, Rensselaer Co.
Edwin Hutchinson,	P. M.,	Utica, Oneida Co.
A. Jacobi,	P. M.,	New York, N. Y.
A. M. Jacobus,	Del.,	New York Academy of Medicine.
Harvey Jewett,	P. M.,	Canandaigua, Ontario Co.
Laurence Johnson,	Del.,	New York, N. Y.
Hermann Knapp,	P. M.,	New York, N. Y.
Charles M. Lefler,	Del.,	Gloversville, Fulton Co.
Joseph Lewi,	P. M.,	Albany, Albany Co.
Daniel Lewis,	Del.,	New York, N. Y.
David Little,	P. M.,	Rochester, Monroe Co.
James L. Little,	P. M.,	New York, N. Y.
A. V. B. Lockrow,	Del.,	New York, N. Y.
Frank S. Low,	P. M.,	Pulaski, Oswego Co.
Henry March,	P. M.,	Albany, Albany Co.
Le Roy McLean,	P. M.,	Troy, Rensselaer Co.
Austin Mandeville,	Del.,	Rochester, Monroe Co.
Arthur Mathewson,	P. M.,	Brooklyn, Kings Co.
W. F. Mittendorf,	Del.,	New York, N. Y.
Joseph Moffatt,	Del.,	Washingtonville, Orange Co.
J. S. Mosher,	P. M.,	Albany, Albany Co.
Paul F. Mundé,	Del.,	New York, N. Y.
C. A. Nicholson,	P. M.,	Beekman, Dutchess Co.
D. Pardee,	P. M.,	Fulton, Oswego Co.
Edw. L. Partridge,	Del.,	New York, N. Y.
R. W. Pease,	P. M.,	Syracuse, Onondaga Co.
Maurice Perkins,	Del.,	Schenectady, Schenectady Co.
H. G. Piffard,	P. M.,	New York, N. Y.
L. S. Pilcher,	Del.,	Brooklyn, Kings Co.
O. D. Tomeroy,	Del.,	New York, N. Y.
T. R. Pooley,	P. M.,	New York, N. Y.
C. H. Porter,	P. M.,	Albany, Albany Co.
W. W. Porter,	P. M.,	Geddes, Onondaga Co.
J. D. Potter,	Del.,	Delphi, Onondaga Co.
J. S. Prout,	P. M.,	Brooklyn, Kings Co.
P. V. S. Pruyn,	P. M.,	Kinderhook, Columbia Co.
J. H. Ripley,	Del.,	New York, N. Y.
D. B. St. John Roosa,	P. M.,	New York, N. Y.
John O. Roe,	P. M.,	Rochester, Monroe Co.
S. Schoonmaker,	Del.,	Rondout, Ulster Co.
Abram S. Seeber,	Del.,	Milford, Otsego Co.
Samuel Sexton,	Del.,	New York, N. Y.
William F. Sheehan,	Del.,	Rochester, Monroe Co.
B. F. Sherman,	P. M.,	Ogdensburg, St. Lawrence Co.
George F. Shrady,	P. M.,	New York, N. Y.
Andrew H. Smith,	Del.,	New York, N. Y.
Wm. Manlius Smith,	P. M.,	Syracuse, Onondaga Co.
Norman L. Snow,	P. M.,	Albany, Albany Co.
James D. Spencer,	Del.,	Watertown, Jefferson Co.
C. L. Stiles,	P. M.,	Owego, Tioga Co.
E. V. Stoddard,	P. M.,	Rochester, Monroe Co.
F. R. Sturgis,	P. M.,	New York, N. Y.
R. K. Tuthill,	P. M.,	Poughkeepsie, Dutchess Co.
S. O. Vanderpoel,	P. M.,	New York, N. Y.
A. Vanderveer,	P. M.,	Albany, Albany Co.
Sol. Van Eitten,	P. M.,	Port Jervis, Orange Co.
E. Van Slyke,	Del.,	Albany, Albany Co.

S. B. Ward,	Del.,	Albany Medical College.
David Webster,	Del.,	New York, N. Y.
B. F. Westbrook,	Del.,	Brooklyn, Kings Co.
William C. Wey,	P. M.,	Elmira, Chemung Co.
J. H. Wheeler,	P. M.,	Athens, Greene Co.
H. R. Winter,	Del.,	Phœnicia, Ulster Co.
C. E. Witbeck,	P. M.,	Cohoes, Albany Co.
William Woodward,	Del.,	Big Flats, Chemung Co.

Total nays, 105.

Tabulated by counties, the vote was as follows :

COUNTY.	AYES.		NAYS.	
	Permanent Members.	Delegates.	Permanent Members.	Delegates.
Albany.....	..	1	11	4
Alleghany.....	..	1	2	..
Broome.....	..	1	..	..
Cayuga.....	..	1	1	1
Chautauqua.....	2	2	..	..
Chemung.....	1	..	1	1
Chenango.....	2	1	..	..
Clinton.....	1	1	..	..
Columbia.....	..	..	1	..
Cortland.....	4	..	..	..
Dutchess.....	1	2	2	..
Erie.....	4	3	..	2
Essex.....	1	..	..	..
Franklin.....	..	1	..	..
Fulton.....	1	..	1	1
Genesee.....	..	1	..	..
Greene.....	..	1	1	..
Herkimer.....	3	1	..	..
Jefferson.....	..	..	..	1
Kings.....	4	8	3	2
Lewis.....	..	1	..	..
Madison.....	..	..	1	1
Monroe.....	1	1	4	2
Montgomery.....	2	..	..	..
New York.....	5	2	13	24
Niagara.....	1	..	..	..
Oneida.....	1	3	2	..
Onondaga.....	2	3	3	1
Ontario.....	..	1	1	..
Orange.....	..	1	1	1
Orleans.....	1	..	..	..
Oswego.....	..	1	2	..
Otsego.....	1	1	..	1
Putnam.....	..	..	..	1
Queens.....	..	1	..	..
Rensselaer.....	7	2	2	..
Rockland.....	1	..	..	..
St. Lawrence.....	..	..	2	..
Saratoga.....	..	1	..	..
Schenectady.....	..	..	..	1
Seneca.....	1	1	..	..
Steuben.....	..	..	..	2
Sullivan.....	..	1	..	..
Tioga.....	..	1	..	2
Tompkins.....	1	..	..	..
Ulster.....	2	..	..	2
Warren.....	..	1	..	..
Washington.....	1	..	..	..
Westchester.....	..	1	..	..
Yates.....	..	..	..	1
Total.....	51	48	54	51

A DINNER TO DR. OLIVER WENDELL HOLMES.—At a recent meeting of medical men at the University Club, convened for quite a different purpose, it was resolved to tender to Dr. Oliver Wendell Holmes a complimentary dinner, as an expression of appreciation of the honor he has conferred on American medical and general literature during the past forty years. The time appointed for the dinner is the 12th of April. The following gentlemen constitute a general Committee of Arrangements: Dr. Fordyce Barker, Honorary Chairman; Dr. T. Gailard Thomas, Chairman; Dr. Paul F. Mundé, Treasurer; Dr. George L. Peabody, Secretary; Dr. A. Brayton Ball, Dr. William T. Bull, Dr. John G. Curtis, Dr. Benjamin F. Dawson, Dr. William H. Draper, Dr. Frank P. Foster, Dr. Allan McLane Hamilton, Dr. Everett Herrick, Dr.

Frank P. Kinnicutt, Dr. E. G. Loring, Dr. Charles McBurney, Dr. Charles I. Pardee, Dr. Henry G. Piffard, Dr. William M. Polk, Dr. Beverley Robinson, Dr. D. B. St. John Roosa, Dr. Charles D. Scudder, Dr. A. A. Smith, Dr. A. H. Smith, Dr. Lewis A. Stimson, Dr. Frederic R. Sturgis, Dr. Charles S. Ward, Dr. Robert F. Weir, Dr. George G. Wheelock, Dr. Leroy M. Yale, Dr. John C. Dalton, Dr. Francis Delafield, Dr. Alfred L. Loomis, Dr. David Webster, Dr. Edward L. Keyes, Dr. Francis M. Weld, Dr. J. H. Anderson, Dr. George M. Lefferts.

It is announced that tickets will not be sold after April 1st, and, as the capacity of the hall is limited, we are asked by the committee to say that those desiring tickets should apply for them before that date. They are to be had, at ten dollars each, of Dr. E. G. Loring, 128 Madison Avenue; Dr. F. R. Sturgis, 16 West Thirty-second Street; Dr. J. G. Curtis, 127 East Thirtieth Street; Dr. G. G. Wheelock, 75 Park Avenue; or Dr. P. F. Mundé, 20 West Forty-fifth Street.

BELLEVUE HOSPITAL MEDICAL COLLEGE.—The twenty-second annual commencement exercises of this institution were held at Chickering Hall on Wednesday evening, the 14th inst. After a prayer by the Rev. Samuel D. Burchard, D. D., the degree of doctor in medicine was conferred on one hundred and sixty-seven gentlemen by the President of the Faculty, Professor Isaac E. Taylor. An address to the graduates was then given by Professor Samuel D. Gross, of Philadelphia, and the valedictory was delivered by E. A. Morgan, M. D., of the graduating class.

THE MEDICAL DEPARTMENT OF THE ARKANSAS INDUSTRIAL UNIVERSITY.—We are indebted to a correspondent for a copy of the "Daily Arkansas Gazette" of the 1st inst., in which we find an account of the commencement exercises of the Medical Department of the Arkansas Industrial University. The graduating class numbered only four—W. H. Moore, of Washington County, T. R. Rutherford, of Clark County, B. S. Zachery, of Pope County, and J. P. Basham, of Johnson. All of these gentlemen took prizes, one of them securing four in addition to an "honorable mention."

DEATH OF DR. F. D. BAGLEY.—Dr. Fillmore D. Bagley died of acute articular rheumatism on Saturday, the 10th inst., at his residence, in East Broadway, at the age of thirty-three. Dr. Bagley was a graduate of the Medical Department of the University of the City of New York, in the class of 1878, and was a clinical assistant in that institution at the time of his death. He was also connected with the Eastern Dispensary. It has been announced that his remains were to be taken to his native town, Troy, Me.

NAVY INTELLIGENCE.—According to the "Army and Navy Journal," the court-martial in the case of Passed Assistant Surgeon W. G. G. Willson, recently tried at Norfolk, found him guilty in a less degree than charged, and sentenced him to thirty days' confinement to the limits of the Swatara. The sentence was approved by the Secretary of the Navy; but, as the Swatara had sailed, the punishment was remitted, and Dr. Willson was released. Surgeon J. W. Coles has been detached from the Nipsic, and placed on waiting orders. The appropriation for the year ending June 30, 1884, includes \$130,000 for the Bureau of Medicine and Surgery.

ARMY INTELLIGENCE.—Official List of Changes of Stations and Duties of Officers of the Medical Department, United States Army, from March 3, 1883, to March 10, 1883.—BROWN, HARVEY E., Major and Surgeon. To be temporarily assigned to duty at Mount Vernon Barracks, Alabama, during the absence on leave of Captain T. A. Cunningham, Assistant Surgeon. Par. 2, S. O. 17, Department of the South, March 6, 1883. CALDWELL, D. G., Captain and Assistant Surgeon. To be relieved from duty at Fort Fred. Steele, Wyoming, and will report in person to the commanding officer at Fort Laramie, Wyoming, for assignment to duty at that post. S. O. 23, Department of the Platte, February 27, 1883. HOPKINS, WILLIAM E., First Lieutenant and Assistant Surgeon. The leave of absence granted December 28, 1882, is extended two months. Par. 5, S. O. 56, A. G. O., March 9, 1883. PAULDING, H. O., Captain and Assistant Surgeon. The leave of absence granted in S. O. 11, Department of the Platte, January 27, 1883, is extended twenty days. S. O. 23, Military Division of the Missouri, March 2, 1883.

Lectures and Addresses.

LECTURES ON HUMAN AUTOMATISM.

DELIVERED AT THE LOWELL INSTITUTE, BOSTON.

By WILLIAM B. CARPENTER, M. D., LL. D., F. R. S., ETC.

LECTURE III.

Secondary or Acquired Automatism of the Human Body. Habitual Movements, as those of Walking, Balancing, Music Playing; their Continued Performance in Profound Sleep, and even in Coma. Morbid Activities of the Same Class.

THE subject of the "secondary" or "acquired" automatism of the human body, to which I have to ask your attention this evening, is one of very considerable interest in itself; and I would the more press it on your attention because I think that the study of it gives us the key to the mental automatism which will furnish the subjects of the latter part of the course. The conclusions to which pure metaphysicians have come as to the nature of these movements will not for a moment stand the test of scientific scrutiny. The manner in which they have treated the subject, indeed, shows the absolute necessity of bringing a thorough knowledge of physiology into any investigation which relates either to the physical or the mental life of man. If, for example, you will look into the writings of Dugald Stewart, one of the ablest of the Scotch metaphysicians, you will find that he maintains the act of walking or riding to be always necessarily *voluntary*, because it was originally voluntary. And he represents the will as in a state of oscillation between the train of ideas whose coherence is maintained by it while we are thinking out a subject by ourselves or conversing with a friend and our simultaneous locomotive action, which (he thinks) must also be maintained by volitional impulses alternating with those which direct our thought. Again, it has been taught by others that an infinitesimally small quantity of will is necessary to keep up these movements when they have become habitual; which seems to me really equivalent to saying that no will at all is needed—and this is what I think I shall be able to show you is the real fact.

You have seen that in the lower tribes of animals the ordinary movements of locomotion are provided for in the mechanism of the animal itself; and the working of that mechanism does not require anything more than guiding sensations. (You will remember how I demonstrated this to you in regard to the centipede.) I shall now go over the same ground in regard to the frog, in which animal we shall find that actions even much higher than those of the centipede may be performed after the removal of the cerebrum, nothing else being left than that "axial cord"* which I re-

gard as furnishing the nerve-center of the whole of the mechanism of automatic movements, whether original or acquired.

In the frog this mechanism is probably original—a part of its hereditary constitution. We shall not go into the question of evolution, and consider how this creature has come to be what he is, but will merely take the frog as we find him, and see what he will do.

You are all familiar with the general attitude and position of the frog, and know that the hind legs constitute his principal instruments of locomotion. Now, suppose that frog's head to be cut off and the body to be placed upon the table in its usual attitude; if, then, you pinch one of its feet, the frog will jump. Further, if a little acid be applied to the central part of the thigh, the other foot will make a movement (I was going to say "will try") to wipe it off. We can not say that the frog tries to do this, because it is done by the headless trunk. Nay, more: if that foot be cut off, the other foot will make a movement to do it. Then, again, if the cerebrum of the frog be taken out, leaving intact the spinal cord with the ganglionic centers of the nerves of sense within the head (this "axial cord" representing the entire nervous system of the centipede), the frog remains in a very curious condition. It is as if asleep, and yet not asleep; for it can be very easily excited to move, but will remain stationary unless excited. If its foot be pinched, it will jump; and the direction of this jump will show it to be influenced by the presence of any obstacle placed before its eyes. Remember that the optic ganglia still remain untouched and uninjured, so that the frog, we have reason to believe, can *see*, although (its cerebrum having been removed) it would probably not be able to form—if it forms at any time—distinct conceptions of what it sees. The impression made by sight of the obstacle directs its leap so as to avoid it, just as it directs the movements of the centipede, or those of a man walking in a state of profound abstraction. Again, on stroking a particular part of the skin of the frog, its characteristic croak may be called forth. One of the most curious phenomena of this state is, that if the frog be placed on the hand, and the hand be then inclined so that the frog would fall off if he did not take some measures to avoid it, the fore feet will advance over the top of the hand so as to hold on; and by moving the hand slowly round, the frog may be made to pass from one side of the hand to the other, creeping over the top edge as the other side becomes the uppermost.

Remarkable as these facts are, I do not see in them any indication of conscious or purposive voluntary action; because I shall be able to show you that we ourselves go through a similar performance, executing a course of action of the same kind, in a state which is parallel to that of the frog, when our cerebral activity is either entirely suspended or is being

* This term I have been long in the habit of using to designate the spinal cord with the sensori-motor ganglia anterior to it, which constitutes (in my view) the true center of all nerve-action, the cerebrum being a superadded organ that is not merely acted on through the axial cord alone, but also reacts only through it. This has always seemed to me the obvious teaching as well of comparative anatomy as of the

history of development; and it is with much satisfaction, therefore, that I recognize, in the modern results alike of anatomical, of experimental, and of pathological inquiries, a distinct convergence to this conclusion. See especially the treatise of Dr. Luys on "The Brain and its Functions," constituting vol. xxxviii of Appleton's "International Scientific Series."

directed into another and altogether different channel. I believe, therefore, that all the actions of the frog which are immediately concerned in the maintenance of its animal life are provided for in its original mechanism, whereas in ourselves the mechanism for their performance has to be constructed in the course of the growth and development of each individual. This mechanism has for its center (in my view) not the cerebrum, but the axial cord on which the cerebrum is superposed. It is in the series of sensori-motor centers which lies along the floor of the brain-cavity, and which communicates by the radiating fibers that constitute the "white" or "medullary" substance of the cerebrum, with the "gray" or "cortical" substance that forms its convoluted surface-layer and constitutes it a ganglionic center, that all the sensory nerve-trunks seem to terminate, and that all the motor nerve-trunks seem to originate; so that it is (to say the least) very doubtful whether the nerve-fibers of either class have any other connection with the ganglionic substance of the cerebrum than that which is made for them by the intermediation of the sensory and motor tracts of the axial cord. Everything, in fact, seems to me to indicate that the higher work of the cerebrum is done upon the information (so to speak) which it receives through the sensory ganglionic tract of this cord; and that, when this work expresses itself in movement, the cerebrum does not operate directly upon the muscles to be called into action, but gives its orders (as it were) to the motor ganglionic tract of the cord, by which they are carried into execution. Every pathologist knows that in almost all cases of paralysis, whether sensory or motor, or both, it is in the ganglionic tract at the base of the brain that we find the injury; not in the cerebrum proper; and that even great injuries to the cerebrum do not at all necessarily, or even generally, produce paralysis; the essential part of the motor apparatus often remaining intact, although the organ by which it is worked may be partially thrown out of gear. This is well seen in cases of the affection termed *aphasia*, in which the defect of cerebral action resulting from local malnutrition manifests itself in the loss of memory of words—the mechanism of speech remaining wholly unaffected. And, even when, through interruption of the communication between the cerebrum and the upper part of the axial cord, there is complete paralysis as regards voluntary movement, the involuntary movements of "expression," as well as purely reflex movements, are often performed by the muscles which the strongest effort of will is powerless to call into action.

I was prevented, by want of time, from mentioning in my last lecture that we have distinct proof of the independent action of parts of this axial cord in the fact that injury often separates its lower part from its upper part, and that the lower part still retains enough reflex power to produce movements when certain stimuli are applied. Cases occur in hospital practice from time to time (the first were recorded by my late valued friend, Dr. William Budd, of Bristol, some forty or forty-five years ago) in which there is an accidental injury of the spinal cord in the lower part of the back; a man, for instance, falling down from the mast of a ship, across some projecting object, by which his spine is seriously injured. The lumbar portion of the spinal cord, which is the

immediate center of the nerves of the legs, may not suffer from anything but a temporary concussion; but it is cut off from communication with the cerebrum through the upper portion. What, then, is the consequence? The man is perfectly paralyzed as regards the voluntary actions of his legs, neither does he *feel* any impression made on them by pricking, pinching, burning, tickling, or any other irritation; and yet if the soles of his feet be tickled, or a warm plate be applied to them, the feet are immediately drawn away by the muscles of the legs. Such cases afford our best proof that these reflex actions are not in the least degree dependent upon consciousness, although attended by consciousness in our ordinary perfect condition, since they are performed in exactly the same way when the patient is prevented from *seeing* the application of the stimulus, of which he is kept altogether unaware. Now, I can not doubt that what is true of man is true also of the frog; and that we may recognize in the corresponding actions of the frog the same fundamental condition—namely, that they can be performed without consciousness.

Now, what is the fact with regard to ourselves? Take the act of walking. We shall presently consider what is involved in that act; I merely speak of it now as one of those well-known secondarily automatic combinations of muscular movement which we learn in infancy, and which abide with us (as it were) through the whole of our active lives. It is perfectly well known that men may walk in a state of complete unconsciousness; for this happens not only in the state called "sleep-walking," in which there is consciousness, though often so limited as to be entirely wanting in relation to bodily movement, but in profound sleep. Officers in the army have seen almost whole regiments so marching in this condition at the end of a long and fatiguing day. It is equally well known in regard to riding; men having come in from a long ride, sitting on their horses and balancing themselves, though in a state of sleep so profound that it was necessary to wake them before getting them to dismount, the horses having found their way home by themselves.

These very simple and well-known facts at once (I think) disprove the idea that the actions of walking and riding are necessarily dependent on the will when once they have been established as regular consentaneous parts of our motor activity.

Now, observe what is involved in this act of walking; not only the onward propulsion by the alternate movement of the legs, but a fresh balancing of the body at every step, in which almost every muscle is called into activity. You know, I dare say, what Paley has said of the young child learning to walk—that he is the greatest posture master in the world; and I do not think this at all untrue. Look at a young child first put upon his legs and encouraged by his father or mother to run across the room alone; you can see at once that the little one is giving the whole energy of his small nature to the combination required in the exercise of his muscles, so as to maintain his equilibrium while putting one foot before the other. It is well known that though many mechanics have applied themselves to the production of walking automata, no one has ever succeeded, for the complexity of the mechanism required is such that it

seems even beyond the capacity of the most ingenious inventor to devise it.

The balancing of the body as well in the lateral as in the back and front direction, which requires the transfer of the center of gravity—not only from one side to the other, but also from behind forward—so as to keep it always over the base of support, which is being constantly shifted, not only by our change from one foot to the other, but by the onward movement of each foot alternately, requires altogether such a complexity of adjustments as is probably unparalleled elsewhere; and yet how perfectly simple and easy do we find it to make them when we have once acquired the habit of doing so. Take, again, the balancing, not so much of an ordinary rope-dancer aided by his weighted pole, as of such a wonderful performer as Blondin. You all doubtless remember that he could walk (without any such aid) upon a rope stretched across the great chasm of Niagara, and even wheel a barrow before him containing a living man, and yet feel himself as perfectly secure upon that rope as you or I would feel in walking across a bridge two feet wide of whose security we were assured, though without a rope or railing on either side. I suppose that none of us would have any difficulty in doing this if such a bridge spanned a shallow stream immediately beneath. And it is only either physical giddiness, or the emotional disturbance produced by the sight of the yawning chasm and the roaring torrent beneath, that would interfere with our doing this equally well at a height of two hundred feet above Niagara, such disturbance interfering with the due action of the automatic mechanism. Of those who are subject to it I am not speaking; but of those cool-headed persons who, when well assured of the security of their footing, can feel that they have nothing to do but to walk straight on, just as if the two-foot plank were level with the floor. Now, just as any person possessing the requisite self-reliance and self-control could easily train himself to cross even the chasm of Niagara on a plank broad enough to allow him to walk in his ordinary mode, and might even do it more easily if thinking of something else all the time, thus keeping himself free from perturbing influences—so (I have very little doubt) could Blondin walk across on his rope while his mind was otherwise continuously engaged, in virtue of the consummate perfection to which he had brought the balancing action of his automatic mechanism. Now, in all such conditions, I hold that the cerebrum is as completely *dissociated* from the action as if it had been taken away altogether, the axial cord furnishing its whole mechanism.

I will give you another illustration of my meaning. Any of you who look into a very interesting and suggestive book, the autobiography of Robert Houdin, the French conjurer, will find in it how he trained himself to the power of juggling with balls—keeping the balls up in the air by what is commonly called “sleight of hand,” simply manual dexterity—at the same time that he could continuously fix his attention upon a book before him. He did this with a purpose. In his early years he foresaw that in educating himself for the course of life he was intending to follow it was necessary that he should be able to carry on these manual operations while his mind was intent upon something else; and he prac-

ticed this until (he said) he was able to keep *four* balls in the air at once without any withdrawal of his attention from the book he was reading. Now, while he is writing his memoirs, he says: “The thought comes over me that I should like to try whether I can do this *now*; it is thirty years since I did it, but I will make the attempt.” He comes back to his writing, and says: “I found I could keep up *three* balls, and still read my book.” Now, that shows, I think, how the mechanism was created by a continuous determinate training, in the first place, entirely kept up by an effort of the will; but it also shows how that volitional training had so impressed itself upon the organism—had so determined, in Houdin’s earlier years, the growth and development of that part of his nervous system—that it shaped itself according to the mode in which it was habitually exercised, and thus became able to act of itself and by itself, simply being set going by the action of the will. And that seems to me to be the very simple physiological explanation of the fact, which was first given by a very able thinker, who was at the same time a metaphysician and a physiologist, David Hartley, a writer with whom many of you are doubtless familiar. His great work “On Man” (1748) may be read and studied with advantage even at the present time; for we have only to translate his “vibrations” into “nerve-currents” to make his physiology accord with modern views; and his development of the doctrine of association is a masterpiece of philosophic thought. There is scarcely any point in which I am not in fundamental accordance with him, except that he does not recognize the directing and controlling power of the will, his system being one of automatism, pure and simple.

I am so desirous to make this doctrine clear to you that I shall give you some further illustrations of the manner in which, when these habitual tracks (so to speak) have been once laid down, the mechanism works of itself, under conditions in which the will must be entirely in abeyance. And I shall first speak of actions performed in states of perfect insensibility. A man was brought, a few years ago, into one of the London hospitals in a state of profound coma, the result of the rupture of a blood-vessel in the brain, and died in a few hours, without showing any sign whatever of consciousness. He was a very finely developed man, and had a very handsome pair of mustaches. Through the whole of this state of profound insensibility he was continually putting up first one hand and then the other to give his mustache a twirl; and it was found, on inquiry made after his death, that, having been formerly a soldier in the Guards, and afterward a policeman, he was always exceedingly proud of this pair of mustaches, and that during life he would seldom pass many minutes without putting up his hand and giving them a twist to keep them in a proper curl. I remember reading in my boyhood an observation made by a very accomplished physician of Manchester, Dr. Percival, who narrated that, having once been called to an old lady in a fit of apoplexy, among various attempts that were made to arouse her consciousness, a feather was introduced into her nostrils, upon which he noticed that, whenever this feather was pushed up far enough, the forefinger and thumb of her right hand closed together. This old lady had been an habitual and inveterate snuff-taker.

I have two cases of the same kind from the records of French hospitals, and they are both of them rather curious. Of one man in this condition it is stated that, when a piece of cord was put into his hand, he would immediately begin to turn and twist it; this man had been a rope-maker. Of another, an old woman completely paralyzed as to her lower extremities, blind, and lying for some time (as was believed) in a state of complete unconsciousness, we are told that if the end of a bandage or a partly rolled piece of linen were put into her hand, she would immediately begin to roll it up. That woman had been early a patient in another hospital, and had been there kept during her whole life in the linen-room, where her employment was especially to roll bandages.

(To be concluded.)

Original Communications.

MEDICAL ETHICS AND ETIQUETTE.

COMMENTARIES ON THE NATIONAL CODE OF ETHICS.

By AUSTIN FLINT, M. D.

Second Article.

THE DUTIES OF PHYSICIANS TO THEIR PATIENTS, AND THE OBLIGATIONS OF PATIENTS TO THEIR PHYSICIANS.

ART. I.—*Duties of Physicians to their Patients.*

SECTION 1. A physician should not only be ever ready to obey the calls of the sick, but his mind ought also to be imbued with the greatness of his mission, and the responsibility he habitually incurs in its discharge. These obligations are the more deep and enduring, because there is no tribunal other than his own conscience to adjudge penalties for carelessness or neglect. Physicians should, therefore, minister to the sick with due impressions of the importance of their office, reflecting that the ease, the health, and the lives of those committed to their charge depend on their skill, attention, and fidelity. They should study, also, in their deportment, so to unite *tenderness* with *firmness*, and *condescension* with *authority*, as to inspire the minds of their patients with gratitude, respect, and confidence.

The sentiments so admirably expressed in the foregoing first paragraph of the code need no arguments for their support, nor any comments to increase their force. They antagonize undue influences arising from self-conceit, an irritable temper, indolence, devotion to pleasure or to occupations which divert from professional duties, and all mercenary considerations. At the same time, they do not contravene self-respect and a proper regard for personal interests. It is not to be assumed that the practice of medicine is a sacred calling in the sense in which this expression is applied to the clerical profession, nor that it is adopted for purely benevolent or philanthropic purposes. The medical profession holds out to its candidates the inducements of an honorable pursuit, studies which are not only attractive, but afford ample scope for the mental faculties, labors which may carry with them the satisfaction of saving life and restoring health, but, conjoined with these, an expectation of gaining a livelihood, together with means for the enjoy-

ment of the pleasures of domestic and social life, a fair prospect for acquiring a competency, and, with prudence and perseverance, even wealth. The last of these inducements are by no means necessarily inconsistent with the higher sentiments which should govern the conduct of physicians. Self-abnegation is a noble trait, not infrequently exemplified in the lives of members of the medical profession, but communities have no more right to demand it of them than of those in other callings, and indifference to their own worldly interests and the claims of their families is not to be enjoined upon them more than upon those engaged in other pursuits. This principle is one to be understood both by physicians and the public. Writers of fiction and dramatists have depicted lives devoted to the duties of medical practice purely as works of charity.* These delineations have their analogues in real life. On the other hand, there are those whose absorbing aim is to acquire either distinction or pecuniary gain. Without undertaking to interfere with motives and objects, for which every one must be responsible to his own conscience, the code of ethics places before the mind of the physician sentiments peculiarly applicable to the exercise of the medical profession.

SEC. 2. Every case committed to the charge of a physician should be treated with attention, steadiness, and humanity. Reasonable indulgence should be granted to the mental imbecility and caprices of the sick. Secrecy and delicacy, when required by peculiar circumstances, should be strictly observed; and the familiar and confidential intercourse to which physicians are admitted in their professional visits should be used with discretion, and with the most scrupulous regard to fidelity and honor. The obligation of secrecy extends beyond the period of professional services; none of the privacies of personal and domestic life, no infirmity of disposition or flaw of character observed during professional attendance, should ever be divulged by the physician except when he is imperatively required to do so. The force and necessity of this obligation are indeed so great that professional men have, under certain circumstances, been protected in their observance of secrecy by courts of justice.

Most persons, of "all sorts and conditions," regard physicians with respect in consideration of their calling. Even they who are notoriously rough and uncivil in their intercourse with others are often gentle and courteous to those from whom they expect to receive medical aid in sickness. As a rule, the physician, in his visits to his sick patients, receives kindness and confidence. It may, however, be otherwise as a consequence of the influence of disease upon the mind. Disease not infrequently renders persons impatient, querulous, irritable, distrustful, suspicious, and these morbid mental conditions may manifest themselves in language and manner, perhaps, much at variance from the traits of character belonging to the same persons when well. Both propriety and policy dictate the utmost forbearance under these circumstances, on the ground that one is not to be held responsible in sickness for utterances and conduct which in health might properly involve accountability. The physician does not compromise his self-respect by submitting patiently to rudeness, or even insults, from a sick patient, to

* E. g., "Le médecin de campagne," by Balzac.

which he would be by no means bound to submit quietly if the patient were well. This ethical rule is not, at least to the same extent, applicable to the friends of patients. But here allowance is often to be made for the disturbance of mind arising from anxiety and apprehensions. Less allowance is due to officious visitors and acquaintances. Forbearance toward these is not always to be embraced within the scope of medical ethics. Prudence and tact are to be exercised according to the circumstances in particular instances.

On the part of the physician, it is a gross impropriety to require the forbearance of his sick patients and their friends. For him there is not the excuse which the latter may fairly claim. Roughness and the lack of courtesy on his part are the more inexcusable for the reason that patients and their friends are, in a measure, at his mercy. They have a right to expect from him kindness and patience, and, if he be lacking therein, he is not entitled to the indulgence which is due to them, if they be deficient in these regards. Brutality toward patients or their friends is a grievous offense against the medical profession. It is especially reprehensible toward hospital patients, or those from whom no pecuniary recompense is expected. Private patients in good circumstances can elect and change physicians. This is a privilege denied to those who seek relief in public institutions, or to whom medical services are gratuitously rendered; hence, it is taking a mean advantage not to treat such patients with attention and humanity.

The binding force of secrecy as regards all information obtained in connection with professional relations, whenever it is desired, or is desirable, on the part of patients or their friends, that the information should not be communicated to others, is not sufficiently appreciated by many members of the medical profession, and still less is it appreciated by the public. Weaknesses, foibles, and vices, perhaps unsuspected by others, become known to the physician. He can not help knowing them if he would. No one but himself is to be the wiser for this knowledge. Physical ailments and defects which the physician must discover, he has no right to speak of. Confidential communications by patients relating to themselves, their families, or their progenitors, are to be held as a sacred trust.

Physicians should be reserved, and exercise judgment in speaking of the ailments of those under their care. Many ailments are of a nature that most persons desire to conceal, and they should not be deprived of the right of concealment. It can not, for example, be agreeable to a young woman for her acquaintances to know that she is troubled with a tapeworm. Other affections of a much more delicate nature might be cited as examples. The right of concealment by no means belongs exclusively to the female sex. Moreover, a patient may have a serious disease, of which, in order to spare family and friends anxiety, or for other reasons, concealment is desired. The physician is bound to respect this desire. A physician who appreciates fully the duty of secrecy can not but feel that it is a reflection upon his professional character when, as often happens, he is requested by a patient to observe this duty. It is true that some patients are not sensitive on this sub-

ject, and they may even desire that others may know of the nature of their maladies. Under these circumstances the physician is, of course, absolved from the duty of secrecy. He is not, however, to act upon his own presumption in the matter, when the feelings of his patients can be readily ascertained.

A more judicious reserve than is now practiced by not a few physicians would soon lead to a better understanding of the ethical duty of secrecy on the part of the public. How common is it for a practitioner to be asked, "What is the matter with Mr. —, or Mrs. —, or Miss —?" The answer is expected to embrace the nature and seat of the disease, the symptoms which are present, and, perhaps, all the details of the sick-room. If a patient happen to be a person of note, the attending physician is liable to be called upon by an interviewer, who expects to get the diagnosis, the symptomatic history, the prognosis, and the treatment, for publication in a newspaper. Now, the ground is by no means to be taken that nothing is to be communicated to friends, acquaintances, or the public respecting cases of disease. It would be simply absurd to take this ground. The condition of a patient in respect of danger, and, in some instances, the probable duration of disease, may properly be made known to those who are interested in the patient's welfare. It is sometimes proper and sometimes not to state the nature of the disease. It may not be proper to go further. Of this, the physician must be the judge. It should be left to his judgment and sense of propriety or duty how much should be told of details belonging to the privacy of the sick-room. Intelligent, well-bred persons, who have reflected upon the duty of a physician in respect of secrecy, will never place him in the unpleasant position of declining to answer questions relating to his patients.

Physicians have to deal with malingering. When called upon to decide whether or not persons are malingerers in prisons, in the army and navy, in hospitals, and other public institutions, and when impostors undertake to deceive the public by feigning diseases, either for gain, sympathy, or notoriety, there can be no question as to the duty of exposure. In private practice the duty will vary according to the circumstances in individual instances. The duty then points to the course which will be most productive of good, and with regard to this the physician is to exercise his judgment. In an instance like the following it seems plain that secrecy would have been improper: A young man, the son of a wealthy father, feigned paroxysms of intense pain and convulsions, and at times unconsciousness. He had imposed upon a medical adviser so far as to obtain from the latter a written statement that he would probably never recover, and was liable to die in one of the paroxysms. When he had reason to know that his deception was discovered by another physician, he became abusive in the extreme, instead of asking for concealment, with a promise that the malingering should cease. Under these circumstances, the diagnosis was stated to the parents, and the case relinquished. Secrecy outside of the family in such an instance would be proper, provided the diagnosis was not kept by them a secret, and the physician was not called upon to

defend its correctness. There are instances, however, the object being to awaken interest or affection, in which exposure is not the physician's duty, inasmuch as it will not do good and may do much harm. It may be a question whether the physician should ever dissimulate so as to appear to be himself deceived. Policy may seem to dictate this course. As a rule, it is more consistent with professional character to undeceive the malingerer at a proper time and in a proper way; otherwise, the physician becomes an accomplice in the fraud. With regard to secrecy beyond this, there can be no better rule than to pursue the course which will do the least harm or the most good to all concerned.

In respect of the knowledge of criminal acts, the physician is not to play the part of a detective or an informer. Some may consider it a strong assertion that a physician is under an ethical bond of secrecy when, through his professional intercourse, he may have ascertained that his patient is an escaped convict, a thief, a robber, a forger, or even a murderer. No matter how heinous the crime, the wretched criminal has a right to medical services in sickness. Who can tell how important it may be that his health should be restored and his life prolonged by these services, albeit in the light of human judgment it might seem better that he remain prostrated by disease or die. The duty of the physician in such instances relates exclusively to the patient. He would be debarred from medical services were it understood that physicians are to play the part of detectives and informers. It may be said that a distinction should be made as to the nature and degree of crimes which patients have committed. But where is the line to be drawn? It is not for the physician to exercise a judicial discretion on that point. The ethical rule is without exceptions. Medical men do not always appreciate the binding force of this rule, and disastrous effects sometimes follow its non-observance. The following recital is in illustration:

An unfortunate young woman had sought to escape the disgrace of maternity, and is a victim of malpractice. A physician is called to attend her in her extremity. He recognizes the nature of the case and the dangerous condition of the patient. He demands, in the cause of justice, to know the name of the author of her trouble, and of the one who had undertaken a criminal interference. An officer of justice is summoned to receive her testimony. The woman dies. The newspapers give publicity to the case, with all its details. The physician acted from his sense of duty, his object being the punishment of the offenders against the law. As results of his action, the moral effect of the steps taken in behalf of justice may have contributed to the death of the patient, and, at least, it is fair to conclude that the misery of her last hours was thereby increased; she left a dishonored memory; disgrace was brought upon the relatives of both parties, he being a husband and the father of a family. After all, the surviving offenders eluded punishment. This is not a hypothetical case. It is left to the reflections of the reader, with but brief comment. In no point of view was the action of the physician to be justified, although taken with good intentions. Knowledge of the fact of malpractice was essential to a proper appreciation

of the case. Further knowledge was not essential, and it was taking an ungenerous and improper advantage to demand it. Compliance with the wishes of the patient, voluntarily and deliberately expressed, could afford the only ground for excuse in the non-observance of secrecy.

The duty of the physician in giving testimony as a medical witness may be regarded from two points of view, namely: medical ethics, and existing laws relating to the subject. As regards the former, he must be himself the judge; in the latter, he will be instructed by legal advisers and the courts. It may happen that there is not agreement in these two points of view; in other words, he may be required to give testimony respecting matters which, in his judgment, are in the category of professional secrets. He must decide in such a case whether he will act in opposition to his convictions of ethical duty, or refuse to testify and accept the consequences, whatever they may be. One who has confidence in his own interpretation of duty, and holds the dictates of conscience to be above all other considerations, will refuse to testify, provided he have firmness enough to take that position. On the other hand, a refusal will not come from those who are distrustful of their ability to judge correctly of ethical duty, or from those who believe that in a conflict between the dictates of conscience and the interpretation of existing laws the latter should prevail; or, again, from those who would rather yield than submit to the consequences of not yielding.

The section of the code of ethics prefixed to these remarks is definite and comprehensive as to the duty and the scope of professional secrecy. Aside from the sense of honor and humanity, this portion of the code affects practitioners of medicine merely in relation to policy. The interests of the public, much more than those of physicians, are involved in this portion of the code. But, in view of these interests, it should be an object with members of the medical profession to secure the enactment of laws which are in full agreement with the letter and the spirit of the code. Testimony which involves a violation of medical ethics should not only be not required, but prohibited. For declining to give testimony, a declaration under oath that it would be a dereliction of the duty of secrecy should suffice.

In the laws of the State of New York there is a statute which is in harmony with the code of medical ethics. It is headed "Physicians not to disclose Professional Information," and reads as follows: "A person duly authorized to practice physic or surgery shall not be allowed to disclose any information which he acquired in attending a patient in a professional capacity, and which was necessary for him to act in that capacity."

A summary of the New York cases, and examples drawn therefrom, may be of interest to the reader.*

"It must be assumed, from the relationship existing, that the information would not have been imparted except for the purpose of aiding the physician in prescribing for the patient. Information means not only communications received from the lips of the patient, but such knowledge as

* Furnished by a legal friend, Edward H. Strobel, Esq.

may be acquired from the patient himself, from the statements of others who surround him, or from observations of his appearance and symptoms." *Edington vs. Mutual Life Insurance Company*, 5 Hun., 1.

"But communications made to persons in attendance at the office of a physician during his absence, and not shown to have been made as the basis of a prescription, are not privileged." Gray, 2 Hill, 300.

"Nor does the statute preclude the physician from testifying to the nature of the disease and the character of the treatment when he sues to recover for his services." Kendall and Gray, 2 Hill, 300.

"But whenever a visit is regarded and acted upon as professional, the statute applies; as, for example, when a wounded man accused of murder was visited by two physicians at the request of the coroner, held on the trial that the physicians could not as witnesses disclose the information that they acquired on such visits, as the prisoner knew them to be physicians, and submitted to questions for that reason." *People vs. Stout*, 3 Park. Cr., 670.

"In an action for divorce, the physician can not be required to testify to conversations which were held with him in his professional capacity, although these conversations tended to establish adultery." *Hume vs. Hume*, 1 N. Y. Sup., 499.

"Nor can a physician be required to testify whether a person had venereal disease when under his care." Sloan vs. N. Y. C. R. R., 45 N. Y., 125.

"There seem to be the two following exceptions to the statute: An application to a physician for means of procuring an abortion, accompanied by a disclosure of the female's name, is not privileged, the ground of the decision being that it was doubtful whether such a communication should be considered as made while consulting the physician professionally, and that the information was not essential to enable him to prescribe." *Hewitt vs. Prince*, 21 Wend., 79.

"The statute creates merely a privilege in favor of the patient, and there is no person, after the patient's death, entitled to assert it. Hence, the statute has no application when a physician is called, in probate of a will, to testify touching the capacity of the deceased patient." *Allen vs. Public Administrator*, 1 Bradf., 21; Wend., 79.

"Both these exceptions are doubted in *Edington vs. Life Insurance Company*, on appeal to Court of Appeals, 67 N. Y., 185. The latter exception was virtually overruled in that case, it being held that the protection which the law gives to professional confidence does not cease upon the death of the party; the seal which the law fixes upon such communications remains unless removed by the party himself or his legal representative."

"It must be understood that the privilege is that of the party and not of the witness. The testimony of a physician, if not objected to by the patient, is admissible. If the party interested waive his right, the physician may be examined." *Johnson vs. Johnson*, 14 Wend., 637.

A statutory law substantially the same as in the State of New York exists in the following States of the Union: Missouri, Wisconsin, Iowa, Indiana, Michigan, Arkansas, and California.

The law in England makes the divulging of professional secrets compulsory. "In the case of the Duchess of Kingston, it was decided that in a court of justice medical men are bound to disclose these secrets when required to do so. Lord Mansfield said on that occasion, 'If a medical man voluntarily revealed these secrets, to be sure he would be guilty of a breach of honor and of great indiscretion, but to give that information which by the law of the land he is bound to do will never be imputed to him as any indiscretion whatever.' In that case Sir C. Hawkins, who had attended the Duchess as a medical man, was compelled to disclose what had been communicated to him in confidence. This is the leading case in England, and fixes the law in that country; or, in better words, it is the common law rule." It will be noted that the decision referred to takes cognizance only of the rights of the medical man, not those of his patients.

The law in France recognizes fully the obligation for secrecy on the part of physicians, as appears from the following citation: "*Obligation des médecins envers les particuliers qu'ils traitent.*"

"Comme un médecin est souvent dans l'occasion de connaître les secrets de ses malades, soit par la confiance qu'on peut avoir en lui, soit par les conjonctures qui rendent sa présence nécessaire, lorsqu'il est question de quelque affaire secrète, il est de son devoir de ne point abuser de ce qui est venu à sa connaissance, et de garder à cet égard un secret inviolable. Ce secret est ordonné par un article des statuts de la faculté de médecine, qui porte: *Aegrorum arcana, visa, audita, intellecta, nemo eliminat.*"—Merlin, "Repertoire de jurisprudence," tome 20, titre, "Médecin," § 111.

TRICHINIASIS IN ITS RELATION TO PUBLIC HEALTH AND NATIONAL ECONOMY.

By FRANK S. BILLINGS, VET. SURG.,

BOSTON.

Second Article.

(Concluded from page 293.)

EXAMINATION OF AMERICAN PORK.

At Chicago, April 21st, a Dr. Paton [newspaper report] is said to have examined *twenty specimens each from four hundred hogs, and found none trichinous*. The Chicago Academy of Sciences ("Boston Medical and Surgical Journal," vol. lxxiv, p. 136) reports the examination of *thirteen hundred and ninety-four hogs, of which twenty-eight were trichinous*.

Health Commissioner De Wolff, of Chicago, reported (1879) finding *eight out of one hundred hogs* which he had had examined *trichinous*.

My own examinations. (I beg leave to give them in detail, for reasons which will appear obvious to the reader.)

These examinations were not made upon any selected lots of hogs, or any that were known to me as coming in one shipment; but taken at random from the hogs as they hung up in the slaughter-house, directly after they had been killed and dressed.

No attempt was made to discover the exact locality from

which the hogs came, but they were bought principally in Chicago, coming direct to Boston, and, with the exception of about fifty, *were emphatically Western hogs.*

In making these examinations, a stump of the pillars of the diaphragm was invariably used, each piece representing one hog. But three microscopic specimens were made from each piece—a rule I invariably adhere to; hence, if there is any error in my figures, it is in favor of the hogs.

1879.

LOT.	Number examined.	Non-trichinous.	Trichinous.	LOT.	Number examined.	Non-trichinous.	Trichinous.
1	47	44	3	12	300	275	25
2	48	46	2	13	201	188	13
3	72	62	10	14	192	187	5
4	60	56	4	15	200	184	16
5	226	210	16	16	257	252	5
6	192	179	13	17	238	225	13
7	100	96	4	18	163	154	9
8	81	80	1	19	26	25	1
9	95	94	1	20	12	11	1
10	93	89	4				
11	98	90	8		2,701	2,547	154

Proportion, 1 : 17.154.

From the same source as the above :

1881.

LOT.	Number examined.	Non-trichinous.	Trichinous.	LOT.	Number examined.	Non-trichinous.	Trichinous.
1	127	120	7	10	125	118	7
2	130	127	3	11	127	122	5
3	153	150	3	12	122	118	4
4	120	115	5	13	124	118	6
5	124	123	1	14	100	100	0
6	100	99	1	15	122	115	7
7	119	113	6	16	120	114	6
8	127	123	4		2,000	1,929	71
9	160	152	8				

Proportion, 1 : 28.

From another source :

LOT.	Number examined.	Non-trichinous.	Trichinous.	LOT.	Number examined.	Non-trichinous.	Trichinous.
1	129	120	9	11	93	93	0
2	130	123	7	12	128	125	3
3	140	130	10	13	112	110	2
4	105	102	3	14	124	120	4
5	73	71	2	15	81	80	1
6	130	125	5	16	84	80	4
7	119	115	4	17	120	117	3
8	127	120	7	18	59	57	2
9	132	130	2		2,068	199	75
10	182	175	7				

Proportion, 1 : 27.

From a third source :

LOT.	Number examined.	Non-trichinous.	Trichinous.	LOT.	Number examined.	Non-trichinous.	Trichinous.
1	105	105	0	13	121	121	0
2	45	45	0	14	103	100	3
3	65	64	1	15	76	75	1
4	80	78	2	16	102	100	2
5	61	60	1	17	130	124	6
6	63	60	3	18	130	125	5
7	96	92	4	19	131	128	3
8	100	99	1	20	122	120	2
9	100	99	1	21	85	84	1
10	98	96	2		2,004	1,959	45
11	90	86	4				
12	101	93	8				

Proportion, 1 : 44.

RÉSUMÉ.

	No. of hogs examined.	Trichinous.	Per cent. of infection.
1879	2,701	154	1 : 17
1881, First source...	2,000	71	1 : 28
1881, Second source...	2,068	75	1 : 27
1881, Third source...	2,004	45	1 : 44
Total	8,773	345	1 : 25

These figures certainly do not serve to support the words of the State Department, that there are "*less trichinae in American pork than that of any other country.*" They do speak in no uncertain terms, that our Government has an imperative duty which it owes a large national interest, until the original source whence swine become invaded be discovered.

It has been said already that but about fifty of these 8,773 hogs were bought at Chicago; hence, were Western hogs, though killed and examined at Boston. They were purchased at the same yards from which the Chicago packing-houses obtain the pork which our State Department declared to be so "*free from trichinae.*"

Further, the percentage of infection of the hogs from the three different sources is interesting, but not easy of explanation, but no more varying than that of those examined in 1879 and 1881 from the same source.

This variation in the per cent. of infection between those examined in 1879 and 1881 called forth the following remarks from Dr. Loring, the present Commissioner of Agriculture :

"A veterinarian of New England informed me on the 14th of April last that he had examined portions from 2,701 Western hogs, obtained in Boston, 154 of which he found infected, i. e., one case to each $17\frac{54}{100}$ hogs examined. He tells me that he will make a statement to this meeting that he has examined portions of 8,773 Western animals, and has found one case to every 25 animals. *You will see that there is a great difference between his first (April) examination and this one, and his result is so greatly different from the English examination of our hogs, above mentioned, and so much above any known percentage among animals of every other country, that I can not but entertain doubts of the value of his examination.*"*

The English examination spoken of reads as follows :

"*The inspectors of the Veterinary Department examined two hundred and seventy-nine separate portions of swine's flesh, which were sent from Liverpool, and detected living trichinae in three specimens*" (1 : 93).

Were Dr. Loring anything but a physician, such criticism as the foregoing might be passed as unworthy of notice, but from a physician, who should have some knowledge of the variation in medical statistics, we should expect some other argument than *empty words.*

First, as to the discrepancy spoken of between the results of my examinations, made about a year apart: it is not greater than that between any two lots taken at random in the same examination, nor so great as between very many lots examined on two consecutive days; as, for instance, in my series of 1881, Lot 14 (source the same as in 1879) was

* See letter to Health Congress, previously referred to.

100 pieces, of which NONE were infected, while of Lot 13, 124 pieces, *six were trichinous*.

In two different epidemics of small-pox, the number of deaths is never the same, or even the number of cases. Are we then to say a later invasion is not small-pox, because the number of cases or deaths is less or more than in a previous? I never for a moment expected similar results, and should have been as pleased to find none as any one in the country.

With reference to the English examination, 1:93, *it is greater by far than the percentage of infection found in the hogs of any other country, and greater than I found in some lots examined by me; for instance, Lots 1, 2, 3, 4 of my third series, 1881, contained, respectively, 105, 45, 65, and 80 specimens, representing 295 hogs, of which three were trichinous, 1:98. Further, we do not know the parts the English examined; had they been pillars of the diaphragm, the per cent. might have been greater.*

As to the *correctness* of my results, I will simply say that Dr. Folsom, of the Massachusetts Board of Health, went over a large part of those examined in 1879, and that competent physicians and a gentleman whom I educated to work with me, whom I can call upon for testimony, continually revised my other specimens as I examined them.

Again, if the Commissioner of Agriculture doubts my results, let him send a competent man or men here, and examine with me the same specimens, be it one or ten thousand, and I venture to say we shall find a percentage of infection *larger than that reported in any other country, and large enough to satisfy any one.*

Further, the Germans might well doubt the figures of their own examinations, as, from the Prussian statistics, we see the percentage of infection is steadily augmenting.

I wish now to refer to the report of Dr. Jansen T. Payne,* which I have before alluded to, from which I quote the following:

"The method of conducting the researches was as follows: 'The examples procured one afternoon were examined the following day by the aid of a good microscope, capable of magnifying objects *two hundred diameters*. *A low power was found to give greater satisfaction than a higher one could have done, and observers in this field would do well to bear this in mind. When it is taken into account that each of the specimens had to be separated into minute shreds before they were placed upon the stage of the microscope, and consider the number of fibers examined in such cases*'" (he examined in all 21,600 specimens from 5,400 hogs), "*it will readily be perceived that it is impossible to make anything like an accurate guess as to the whole number of pieces of muscle-fiber examined.*"

Result: Number examined, 5,400; trichinous, 22.

"By this series of examinations, it has been ascertained that Southern-bred hogs are free from trichinae."

If there is anything I dislike to do, it is to criticise the work of another observer; but one would like to know if *two hundred diameters* is considered a *low power*. For myself, when looking for trichinae, should I use such a power,

I should not expect to find many trichinae, but *boa-constrictors*; in fact, many would escape me. The male trichina measures one eighteenth, the female one eighth of an inch, in length—magnified two hundred diameters, what would one have?

Again, dividing specimens into shreds may be highly technical, but eminently unpractical; for with crush-specimens one can easily recognize the parasite, and it is done quickly, while in this way, and such a high power as two hundred diameters, one would be sure to miss many.

I doubt the statement that "*Southern hogs are free from trichinae*" as much as I do that "*corn-feeding*" has anything to do with trichiniasis.

My observations have been made, but not of Massachusetts hogs, at Boston, which is not the place for such work, except so far as the obtaining of the per cent. of infection of hogs slaughtered here goes. We must go West, to the fountain-head. At Chicago it would be possible to examine large lots of hogs which have come directly from the breeder or fatterer to the packer. Individual lots could be examined, and traced back to the source whence they came. If found highly infected, it would be easy to go to such places and make all manner of examinations—of remaining hogs, the earth, worms, grubs, etc. *Some unknown living thing lodges trichinae before they enter the porcine organism.* The questions are: *What is it? Where is it? What are its modes of life?*

These things discovered, and they must be, an end can be put to porcine trichiniasis, and hence to human.

Bluffing the attempt to write down an existing fact will only end in ridicule to this Government; *research*, untiring and unceasing, is the only "*cure*"; cost what it will, it will pay far better than governmental lies.

American hogs are much more trichinous than European.

A CASE OF OVARIAN CYST, COMPLICATED WITH POLYPUS UTERI.

By H. C. COE, M. D.,

NEW YORK.

If an apology seems necessary for presenting a single case of ovariectomy, in these days when a series of a hundred hardly attracts attention, it rests in the fact that so variable are the conditions surrounding the operation that no observations bearing on new and possible complications can be entirely without value. With the kind permission of Dr. Emmet, in whose service at the Woman's Hospital the case occurred, the following is cited as an instance of a formidable obstacle which may occur to any operator.

Mrs. M. J., aged fifty, entered the hospital September 15, 1882. Though she had had ten children and *twenty-seven* miscarriages during her thirty years of married life, she had always been in perfect health until two years ago, when she first noticed a small lump in the left inguinal region. The catamenia had been regular, but soon after the patient began to have metrorrhagia, at times excessive, and the periods recurred irregularly, attended with menorrhagia. Six weeks before entrance, after being tamponed for hæm-

* Report of the American Public Health Association, 1881.

orrhage, phlegmasia developed in the left leg. The tumor above mentioned grew slowly until two months ago, when it began to enlarge rapidly, and occasioned severe darting pains in the back and abdomen.

On entrance, the patient was exhausted by repeated hæmorrhages, could not sleep in a recumbent posture on account of dyspnœa, and could retain nothing on her stomach. Examination showed the presence of an immense ovarian cystoma (probably multilocular) growing from the left side. Growing from the cervical canal and filling the vault of the vagina was a fibroid polypus, which bled at the slightest touch. As the indications were urgent, it was decided to remove the ovarian cyst first. After the common preliminary treatment, the woman was operated upon in the usual manner. On the night before the operation a brisk uterine hæmorrhage occurred, which was promptly checked by hot-water injections. There was nothing interesting about the tumor, as it was a simple multilocular cyst, with numerous adhesions to the intestines, which showed on their peritoneal coat evidences of recent peritonitis.

Not to rehearse the ordinary after-treatment pursued in these cases, it will suffice to state that the patient had rather more pain in the abdomen than is usual, and had a pulse of an uncertain character, indicating a tendency to heart-failure. However, as she took a fair amount of nourishment, and the temperature did not rise above 102° F., a favorable prognosis was given. There had been no show of blood from the vagina up to the fifth day, when a movement of the bowels occurred, followed by a slight uterine hæmorrhage. The same thing occurred at night, so that it was thought advisable to give an injection of hot alum solution, the vagina being afterward tamponed. The patient was considerably exhausted, but her pulse remained of fair volume. At three and six the next morning it was necessary to repeat the tamponing. As the bowels still had a tendency to move, the rectal enemata were stopped, and opium suppositories given, stimulants being administered by the mouth. At ten o'clock the same day the hæmorrhage began again, whereupon the patient was carefully lifted to the edge of the bed, and the vagina exposed by a duck-bill speculum. Blood was flowing freely from the os externum, along the pedicle of the tumor. The bleeding surface was swabbed with a weak solution of iron, and the vagina tightly tamponed with cotton soaked in the same. The woman was now completely exhausted, with a feeble pulse, and vomited several times, complaining of intense pain in the abdomen. As she could retain nothing, whether given by the mouth or the rectum, brandy was administered hypodermically. Her condition improved during the day, though the evening temperature was 102.5°, and peritonitis seemed imminent. The ice-coil was kept on all night, and acted most beneficially in relieving the abdominal tenderness and controlling the temperature. She had improved so much that the next afternoon (the seventh day after the operation) she was lifted from the bed, placed upon the operating-table, and the tampon removed by Dr. Emmet, who syringed out the vagina with a saturated solution of alum. There was no further tendency to hæmorrhage, and from this time until the twelfth day, when she was removed to the house, the

patient's recovery was rapid, and without an untoward symptom. The abdominal wound (which had been closed with "salmon-gut") had healed perfectly, without suppuration.

Five weeks after the operation Dr. Emmet made a vaginal examination with reference to the expediency of removing the polypus; but there had been no return of the hæmorrhage, and it was thought better to wait until the patient's general condition improved. A month later there had not been that general improvement which had been hoped for. The œdema of the left leg had reappeared, confining the woman to her bed and retarding her recovery. Two weeks after this (injections of carbolized water had been given night and morning for two months) a foul watery discharge from the vagina suddenly appeared, and, on examination, the pedicle of the polypus was found to be sloughing. The patient was etherized, and the tumor readily removed with scissors. It was found that the necrotic process had extended to the adjacent posterior lip of the cervix, which presented a curiously hardened feel, strongly suggestive of malignant disease. The diseased tissue was removed as thoroughly as possible.

The operation was not followed by bad results, though the offensive discharge continued.

From this time there was a complaint of constant lancinating pains in the lower part of the abdomen. A week later, examination showed that the posterior lip of the cervix had almost entirely disappeared, the vault of the vagina was hard and resisting, and the whole cervix was fixed. The sharp curette was used carefully, on account of the close proximity of the peritoneal cavity.

The patient was advised to go home at once, as she was evidently failing rapidly in strength, and suffered from severe abdominal pains, while there was a profuse watery and offensive discharge, in spite of local astringent applications and injections. It was conjectured, and with some probability, that malignant disease had developed on the site of the sloughing pedicle. January 14th, four months after entrance, she was discharged, and has not been heard from since.

No definite rules can be laid down in such a case as the foregoing. The question first presented, whether the cyst or polypus should be removed, was, from the urgency of the symptoms, naturally decided in favor of the former, since the metrorrhagia seemed insignificant in comparison with the grave general disturbances occasioned by the presence of the ovarian tumor. Perhaps too little stress had been placed upon the hæmorrhages as a possible complication after the operation. Certain it was, that, though not formidable under other circumstances, occurring in a patient so soon after ovariectomy they rendered the case apparently hopeless. The accident was met as it would have been met in any other case; in fact, there was no time to temporize, and every ounce of blood had to be saved at any cost. The idea had occurred to Dr. Emmet to remove the polypus while the patient was in the cottage, but, as the hæmorrhage ceased, this was not necessary. The result would, doubtless, have been fatal. Again, after the patient had become con-

valescent, the question of removing the polypus arose, and here the criticism may be advanced that the tumor should not have been neglected for two months, and finally allowed to slough away. Was not the danger from such sloughing greater than would have resulted from the comparatively slight operation? Certainly, in case this condition had lasted for any length of time. But the case was kept constantly under observation, frequent examinations were made, and it was noted that there was neither hæmorrhage nor foul discharge until the rapid change already referred to. Under these circumstances, it was decided that there was no occasion for interference until the woman's convalescence from ovariectomy should be complete.

The final result was unexpected and inexplicable. Why the sloughing process should have begun and extended so rapidly it is impossible to say. The effect on the patient's health was most marked. From the very day of the foul discharge it began to deteriorate. As to the question of the rapid development of malignant disease, the writer is inclined to be skeptical. Microscopic examinations of fragments of the sloughing cervix uteri were negative. The sections showed fibrous tissue, the meshes of which were crowded with leucocytes. In a few places were cells of an epithelial type, but no trace of alveolar arrangement. Not to quote from the literature of a subject on which authorities are divided, malignant degeneration of fibroids is certainly very rare, and such rapid development is rarer still.

Dr. Emmet suggests that the condition of the cervix might be attributed to the sudden development of sarcoma at the point of irritation. This, too, would be a rare occurrence, and it was not confirmed by the microscopic examination.

[A week after this paper was written, the patient called to see me. She was in fair health, but suffered from occasional darting pains in the groins, extending down the limbs. There had been a constant watery discharge from the vagina, but no hæmorrhage. A careful examination showed that the peculiar hardening process before noted was not confined to the cervix, but had extended up the canal to the body of the uterus. The finger passed within the canal encountered a soft, fungus-like mass. A portion of this was detached with a dull-wire curette and examined microscopically. The result was negative. As seen fresh, the tissue appeared to be crowded with round cells, with evidences of an indistinct fibrous basis. Hardened sections showed nothing except disintegrated fibrous tissue, the interior of which was poor in cells.

By this additional clinical evidence the theory of malignant disease is still further strengthened.]

CRIMINAL QUACKS.—Quite a number of so-called physicians have recently been arrested on various charges throughout the country.

In one instance, two traveling "cancer doctors" were lodged in jail on the charge of homicide for causing the death of an old lady seventy-three years of age, whom they had treated for cancer.

In another case a person was arrested in Philadelphia charged with cheating and obtaining money under false pretenses, and one of his methods was to establish quack medical offices in one city after another and then sell out the business under misrepresentations of its value. He had been quite successful in this until the police interrupted his "practice."

Correspondence.

LETTER FROM BUFFALO.

BUFFALO, March 7, 1883.

THE course of lectures has just been concluded in the Medical Department of the University of Buffalo, and some fifty-seven embryonic doctors were given birth to by the alma mater. But eight others were relegated to the class of premature deliveries by the faculty, while two were plucked by the curators. I believe this is the only college where the duties of the curators are not merely nominal. After examination by the faculty, the students pass before these old practitioners, chosen from physicians in the western counties of the State, to have their knowledge put upon the rack. The body of curators can pluck whom it pleases, or even give a diploma to one who did not receive a majority of votes from the faculty, as happened at this commencement. A full meeting of the Alumni Association was present to assist at the accouchement. Papers were read before this body upon very interesting subjects—that of Dr. J. B. Andrews, "Practical Remarks upon the Treatment of the Insane," being most interesting. The daily press of Buffalo has, in its endeavors to get up an excitement of some sort for the sleepy people of Buffalo, been meddling with the treatment of the insane. Hence this well-timed paper of the Superintendent of the State Insane Asylum here. There was another upon the same subject by Dr. P. M. Wise, of the Willard Asylum at Ovid.

The University was founded in 1846, and among the earliest professors in the medical department were men now counted among America's laureled physicians and scientists—Dr. Austin Flint, Dr. Frank H. Hamilton, and Dr. J. C. Dalton, and in the classes have been such men as Dr. Kane, the Arctic explorer, and General Meyer, the meteorologist. The college is very prosperous, and is always generous in endeavoring to secure the best instruction and advantages for her children. Some changes are taking place in the faculty in the lapse of years. Professor C. A. Doremus was recently called to the chair of Chemistry in Bellevue, and, though sorry to lose so thorough and entertaining an instructor, the college rejoices to have obtained so competent a successor in the person of Professor R. A. Witthaus, author of a work on chemistry in the Wood Library. Professor Witthaus is a great favorite with the students. The death of Professor James P. White was a great blow to the faculty, because in him, grown gray with years and large experience, they lost not alone one of the founders of the University, but one who could command the attention of, and instill obstetrics and gynecology into, most unpromising blockheads by his humor and eloquence. His large library, accumulated in fifty years of practice, is now the property of the college, occupying a cozy room in the building, and giving students an inviting place to spend their leisure hours these long winter evenings. The place of Professor White has been well filled by Matthew D. Mann, M. D., of Hartford, Connecticut, who, though a young man, is one of the most thorough, practical, and conscientious teachers the college possesses. He is a careful and skillful operator, much more scientific and methodic than Professor White, and destined at no distant day to more than fill the place of his predecessor in this special department for western New York. Professor Julius F. Miner, one of the best surgeons of the State, who for years has been a professor in the medical department here, has been compelled by failing health to give up teaching, and a few days ago was made Emeritus Professor of Surgery in the University of Buffalo. Professor Thomas F. Rochester has filled the chair of Practice of Medicine admirably for years, and there are none who do not delight to listen

to him. In general surgery it has well been said that there is no other clinical teacher in the United States equal to Professor E. M. Moore, of Rochester, and it is the fortune of this University to possess such a Koh-i-noor. In addition to these and the chairs of Physiology—filled by Professor Mason, of Norwich, Connecticut; of Anatomy, by Professor Charles Cary; and of *Materia Medica* and Therapeutics, by Professor E. V. Stoddard, of Rochester—there are courses of lectures on Skin Diseases by Dr. B. Folwell; on Psychiatry by Dr. J. B. Andrews, Superintendent of the State Insane Asylum; on the Eye and Ear by Dr. L. Howe; and on Pathology and Morbid Anatomy by Dr. Frederick Peterson.

Buffalo, a city of nearly two hundred thousand inhabitants, should and does afford a large amount of clinical material—not so much, perhaps, as with better arrangements might be obtained—still, sufficient to make this city attractive to students and graduates as fast becoming a medical center. The Buffalo General Hospital, with one hundred beds and an elegant amphitheatre, furnishes considerable material for the medical, surgical, and gynecological clinics. There are three internes, who, without other salary than board and rooms, serve eighteen months each, a new one being chosen every six months from students or graduates of the medical department of the University here. The Sisters of Charity Hospital is larger than the Buffalo General, and provides excellent clinical instruction. There is in this institution no regularly chosen interne, but any student having influence with the sisters can avail himself of residence there and the enjoyment of a large amount of experience. Three or four miles from the city is the Erie County Almshouse, a very large institution, whence comes an all-sufficient supply of anatomical material, affording one of the best fields in Buffalo for clinical experience. There are there three internes—one in the chronic insane department with a salary of \$700, one in the general department with \$600, and an assistant to the latter, who has his board. There being but one attending physician from outside, here the internes hold absolute sway over innumerable operations—surgical, obstetrical, medical, anatomical, and pathological. Political influence is necessary to secure these positions.

The magnificent pile of brown stone within two years erected by the State of New York for some of her insane has room for three hundred inmates. Professor J. B. Andrews is the superintendent, with at present two assistants. As the number of patients increases, the number of assistants must rise in proportion. There is always a place there for one student a few months, who wishes to undertake the duties of an apothecary as well as general assistant while attending lectures in the college. It is hoped and expected that we shall soon have the benefit of a clinic on Psychiatry. The Buffalo Eye and Ear Infirmary, under the charge of Dr. Howe, supplies students of that specialty really exceptional advantages, owing to the German element in Buffalo making up one half of the population, and the Germans being by education always more ready than others to patronize public medical institutions. Until within a few weeks this was the only dispensary in Buffalo, but a change as if by magic has come over the spirit of the profession, and now Buffalo enjoys the advantages or disadvantages of at least nine dispensaries either forming or already under way! The laity, which for a moment possibly wonders at this sudden outburst of enthusiasm among doctors for doing good to the poor, thinks truly indeed

"The charities which soothe and heal and bless
Are scattered at the feet of man like flowers."

Alas! were the veil drawn away, how they would be startled at the skeleton behind it! Under the pretense of charity the

physicians thus seek to advertise their names to the public, and jealousy has caused the dispensary mania to become epidemic, no one wishing to be outdone by another in the scramble for vast acquaintance.

But the life which has lately taken the place among Buffalo doctors of this former something—which seemed very much like apathy—has manifested itself, too, in other than selfish directions, in a real determination to improve the general interests and culture of the profession. This has been most marked in the founding of a medical library, which, in a central situation, with several hundred volumes, and innumerable medical journals, American, English, French, and German, now is a magnet to attract the leisure evening hours of the younger proselytes of Hippocrates.

Still, with this the commotion among us has not ceased, for a new medical journal, in German and for the German-American physicians, has just appeared, in addition to the bale old "Buffalo Medical and Surgical Journal," which has hung on to the bosom of the profession for some twenty-two years; and it is somewhere rumored that another and more enterprising one will soon apply its mouth to the nipple of the medical public.

Buffalo has been a Sleepy Hollow, out of which no one has ventured until lately. Years ago some of the physicians had the temerity to go to New York and Philadelphia and bring out to us new ideas and appliances. Several have actually gone to Europe and returned with their heads full of bacteria, which many in the community recognized as of a dangerous septic nature. But the contamination of these is not equal to that of the Hamburg Canal. I ought to speak of the Hamburg Canal at some length. It does honor to the city authorities. It leads one to favor highly the Board of Health's remaining a political body. The Hamburg Canal is that part of the Erie Canal which lies in the city of Buffalo. The city authorities, a great many years ago, wisely arranged that the sewers of the city should empty into this canal. Consequently, we now enjoy the fruits of their wisdom. The odors from this pleasant spot in the midst of the city are wafted into our dwellings along with here and there stray germs of scarlet, typhoid, and intermittent fevers, diphtheria, influenza, etc. Then flowing slowly down to Tonawanda and other villages, the inhabitants there bless us for so generously manuring their soil and drinking water. About a week ago, owing to heavy winds from the lake, in some manner not to my ignorance explicable, our houses were supplied with a rather turbid mixture of sewage from the Hamburg Canal and our clear Niagara water. As a result of this, zymotic and diarrhoeal diseases increased within a few days to a very great extent.

Speaking of the Hamburg Canal reminds me of the new College of Physicians and Surgeons here—which not long ago the Erie County Medical Society destroyed by litigation, but which, like Phoenix, arises anew from her ashes—the thought of one leads naturally to the other. I do not mean to imply any relationship in quality, characteristics, or sensations imparted, but only that the new medical school is situated upon the canal. Being eclectic, as such schools generally are, it teaches homoeopathy chiefly, as such schools generally do. What clever forethought on their part in the choice of situation? Hamburg Canal water, or drops, as they might be called, can so conveniently be applied to the treatment of the diarrhoeal and zymotic diseases—*similia similibus curantur*. However, it seems in some respects unlucky that the faculty of this new institution should have chosen this position for it—and they have our hearty compassion—for already in the streets one hears it familiarly dubbed the Hamburg Canal College.

The interest in medical societies has also been manifestly

awakened of late; the attendance is much larger than of old; papers are newer and better, and discussions more spirited.

The Buffalo Medical Association meets once a month. At the meeting this week we had a paper of unusual value, "Geology in relation to Sanitary Science," by Dr. Julius Pohlman, of the Society of Natural Sciences.

The Medical Club is an association of some twenty-five of the young and active physicians of Buffalo, which meets twice monthly to read and discuss papers, make clinical reports, and exhibit specimens. It is said that the attendance here is always full.

Another club of like character upon the east side of the city is the Medical Union, and there also it is said that a lively interest in the progress of our science is taken, and that papers of much value are read and debated with animation.

The Microscopical Society has a large medical membership. The president of the Society of Natural Sciences is also a medical man, with a catholic love for all science.

We Buffalo doctors are fully alive, as I have shown, to the spirit of these times. Buffalo will one day be a great medical center, as she will be too in all the arts, the sciences, and commerce. At present she rubs her eyes, like Rip Van Winkle, after her sleep of many years.

Book Notices.

Leçons cliniques sur l'épilepsie: Leçons faites à l'Asile Sainte-Anne. Par M. V. MAGNAN, Médecin en chef à l'Asile Sainte-Anne, etc. Recueillies et publiées par M. le Dr. MARCEL BRIAND, Ancien Interne et Médecin Inspecteur Adjoint des Asiles d'Aliénés de la Seine. Paris: Bureaux du Progrès Médical, 1882. Pp. 87.

THIS brochure consists of a series of six brief clinical lectures upon the subject mentioned, and does not call for an extended notice. Beginning in the first lecture with the *aura*, the writer devotes another to a description of the phenomena observed during an attack, considerable attention being paid to the subject of arterial tension. Several sphygmographic tracings are appended. In the third and fourth lectures the responsibility of epileptics is considered, M. Magnan favoring a mild, but judicious, restraint in the case of those patients who are temporarily dangerous. In the concluding lecture, on treatment, the usual list of remedies is presented, preference being given to the bromides. The easy, conversational style of these lectures makes them pleasant reading. While not assuming to treat exhaustively either the pathology or clinical appearances of epilepsy, they present a fair picture of the disease, as seen from the stand-point of the alienist.

Fragments d'ophtalmologie pratique. Blépharite. Granulome palpébral. Conjonctivite purulente des nouveau-nés. Conjonctivite granuleuse. Kératite vasculaire d'origine granuleuse. Par le Docteur S. BAUDRY, Médecin-Oculiste du Bureau de Bienfaisance de Lille. Paris: O. Berthier, 1883. P. 66. [Price, 2 fr., 50.]

THIS little brochure treats of various chronic affections of the conjunctiva and cornea which are most commonly met with, such as blepharitis, palpebral granuloma, purulent conjunctivitis of new-born children, granular conjunctivitis, and vascular keratitis from granular lids. There is nothing new in the presentation of these subjects or in the methods of treatment proposed. In the purulent conjunctivitis of infants, the author

recommends the daily application of powdered iodoform to the conjunctiva, as well as an ointment of the same; but calls attention to the care necessary in its use, from the danger of poisoning in such subjects. In the vascular pannus occurring with granular lids, he speaks highly of the efficacy of the new Brazilian drug known as jequirity in clearing up the opacity and curing the granulations, and regards it as superior to inoculation.

Simulation de l'amaurose et de l'amblyopie: des principaux moyens de la dévoiler. Par le Docteur S. BAUDRY, Médecin-Oculiste du Bureau de Bienfaisance de Lille. 5 figures dans le texte. Paris: O. Berthier, 1883. Pp. 32. [Price, 2 fr., 50.]

THE author first considers unilateral simulated amaurosis, and the tests by the prism, strong convex glasses, Javal's method of introducing a pencil or ruler between the healthy eye and the object looked at, Snellen's test of making the patient look through a colored glass, and the stereoscopic test. He calls particular attention to the necessity of carefully observing the direction of the visual axes and the condition of the pupil in these cases. He then considers the subject of unilateral simulated amblyopia, regarding it as important to settle definitely the following three questions: 1. Is the amblyopia real, and of what degree? 2. Is it of traumatic origin? 3. Will the amblyopia remain stationary, or end in absolute blindness? He discusses Herter's test, Monoyer's stereoscopic test, and the test by prisms. The subject is well presented and clearly discussed.

BOOKS AND PAMPHLETS RECEIVED.

Manual of Gynecology. By D. Berry Hart, M. D., F. R. C. P. E., Lecturer on Midwifery and Diseases of Women, School of Medicine, Edinburgh, etc., and A. H. Barbour, M. A., B. Sc., M. B., Assistant to the Professor of Midwifery, University of Edinburgh, etc. Volume II. With one lithograph and two hundred and ten woodcuts. New York: William Wood & Co., 1883. Pp. xiii-366. [Wood's Library of Standard Medical Authors.]

Transactions of the Twenty-ninth Annual Meeting of the Medical Society of North Carolina, and Conjoint Session of the North Carolina Board of Health, held in Concord, May 9-11, 1882. Wilmington, 1883. Pp. iii-193-lxvi.

Twenty-ninth Report upon the Births, Marriages, and Deaths in the State of Rhode Island, for the year ending December 31, 1881. Prepared by Charles H. Fisher, M. D., State Registrar of Vital Statistics. Providence, 1882. Pp. viii-157.

Fourteenth Annual Report of the Trustees of the Willard Asylum for the Insane, for the year 1882. Albany, 1883. Pp. 34.

The Percentage of College-bred Men in the Medical Profession. A paper read before the American Academy of Medicine, at its annual meeting in Philadelphia, October 27, 1882. By Charles McIntire, Jr., M. D., of Easton, Pa. Philadelphia, 1883. Pp. 13.

THE HOT SPRINGS OF ARKANSAS.—The Hot Springs correspondent of the "Army and Navy Journal" announces that the springs are 'run by the devil, . . . and that he 'heals his own friends,' so that, those who come and receive no benefit can feel assured of their future welfare."

YELLOW FEVER IN THE EAST.—The "Gazette hebdomadaire de médecine et de chirurgie" remarks that the latest news from Senegal is to the effect that the prevalence of yellow fever had entirely ceased, that Dakar had been free from the disease since January 25th, and that the sanitary condition of the Pailhs was excellent, Admiral Grivel's death having been due to the remittent fever that always rages on the African coast.

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THE UNITED STATES MEDICAL COLLEGE.

AN interesting decision as to the status of medical colleges has just been rendered by Judge Van Vorst in the Supreme Court of this city, upon the following facts: In April, 1882, the Attorney-General of the State, upon the complaint of the New York County Medical Society, brought a suit against Robert A. Gunn, Benjamin J. Stow, Paul W. Allen, Alexander Wilder, Thomas A. Granger, Mark Nivison, and Dennis E. Smith, as incorporators of the United States Medical College, of this city, to set aside the incorporation of that institution. The defendants demurred to the sufficiency of the complaint, but, after the passage, in June, 1882, of an act by the Legislature legalizing the incorporation of "scientific" and "literary" colleges, the demurrer was withdrawn and this act set up in full answer to the complaint, as it was supposed. The plaintiffs in their turn demurred to the answer, maintaining that the act of 1882 was not broad enough to include a medical college.

The fact of the informality of the original organization of the college seems to have been in form admitted by the defendants, and the decision of the Supreme Court in the case of *The People vs. Cothran*, decided in June, 1882, and reported in 27 Hun's Reports, page 345, is to the effect that a medical college can not be organized under the laws of 1848. This latter decision has not yet been reversed, and, as matters stand at present, it is the law of the State. The question involved in the case of the United States Medical College is, whether the act of 1882 legalizes the informal organization of the college under the laws of 1848. This point the Court decides adversely to the college. Section 2 of chapter 367 of the laws of 1882 is as follows: "All scientific and all literary colleges and universities, organized under said acts" (1848), "which shall have reported to the said regents within the two years last past, are hereby declared legally incorporated, and all degrees heretofore and hereafter conferred by them are declared valid; and all such colleges and universities shall be subject to the same duties, obligations, and liabilities, and to the same control and visitation of said regents, as colleges and universities chartered by said regents." The Court, in construing this section, decided that the words "scientific and literary colleges and universities" did not include any other institutions than those referred to in the act of 1848, and that the section was no broader. If, therefore, the act of 1848 excluded medical colleges, they could not be relieved by the later act.

Judge Van Vorst, in concluding his opinion, says: "But upon careful consideration of the subject, after examination of the opinions above referred to and the statutes themselves, I

conclude that the act of 1882 was not intended to and does not include a medical college. And that when its second section speaks of all scientific and all literary colleges, terms used in the amendments of 1870 in a special connection, it refers only to such institutions as could be organized under those acts. I am quite sure that, if some persons had taken steps to organize a corporation under the acts in question for purposes not thereby authorized, the act of 1882 could not be invoked to uphold it.

"The People *vs.* Nelson, 46 New York, 477, holds that, 'in order to avail themselves of that act' (chapter 319 of the laws of 1848), 'parties seeking incorporation must bring themselves within the terms of the act.' And under the decision in *The People vs. Cothran* this the defendants have failed to do. If within its terms, notwithstanding a want of conformity to certain statutory provisions with regard to form of organization or otherwise, its creation would have been legalized by the act of 1882. The question is not free from doubt or difficulty, but I accept the decision already made as the law in this case, and the result reached is, that there must be judgment for the plaintiff on the demurrer."

It is understood that an appeal will be taken by the United States Medical College, first to the General Term of the Supreme Court, and then to the Court of Appeals, if the present decision is sustained. The final determination of the case is, therefore, a matter of uncertainty; but two decisions have been rendered adverse to the position claimed by the college, and it is not likely they will be reversed. Medical colleges have been usually organized, in recent years, under the act of 1853, which contained carefully prepared provisions for their management, and for the graduation of students; but the United States Medical College, which was organized in 1878, professed to be incorporated under the act of 1848, which is totally without any provisions for the proper supervision of any institution such as a medical college. The practical effects of the decision can hardly be stated at present while the appeals remain undecided, but we may indulge the hope that the success thus far met with in opposing the validity of the degrees conferred by this "college" may lead the profession in this State to shake off the apathy with which they have heretofore looked upon the efforts of the county societies toward purging the community of unworthy sources of diplomas.

COLLEGE-BRED MEN IN THE PROFESSION.

A FEW years ago a medical society was organized in this country under the style of the American Academy of Medicine. Fault enough was found at the time with the working of the American Medical Association, and has since continued to be found with it—with ample reason, we are constrained to say. There has, then, been no lack of opportunity for the formation of a national society representing the best elements in the profession of medicine. For some reason, the American Academy of Medicine, which appeared to have been organized with such a purpose in view, failed to impress medical men in general with a sense of its fitness to supplant the older association,

mainly, perhaps, because the latter, with all its shortcomings, was looked upon far and wide with a feeling akin to veneration and affection. It had done good work in the past, and among its permanent members were numbered nearly all the men who were recognized as having contributed to whatever of renown American medicine may deserve. Moreover, most men incline to strive for the renovation of an existing institution, even if it seems verging on decay, rather than begin anew. Attaching all due importance to this consideration, however, we are inclined to think that some other factor must have played an essential part in hindering the academy from springing at once into leadership among our national societies.

We are not sure that this factor was not the very feature on which the academy has seemed to pride itself, namely, that restriction in the matter of eligibility to membership embodied in the policy of admitting only men who had been pupils at an academic college before they studied medicine. It may very well have seemed to many reflecting persons that the academy had missed the substance, and seized upon the shadow. There must be very few persons of intelligence, and of any considerable observation of what is going on in the world, who feel themselves in the slightest degree beneath a man simply because that man is a college graduate, for they know full well that it is within the power of almost any pigmy to perch himself on that Alp. It is not our purpose to join in the cry against American colleges, for we recognize the high order of work that is done by our leading institutions of learning, and we believe that even the lowliest of them serve a good purpose in their respective spheres. Furthermore, we are quite of the opinion that no young man, especially if he intends to enter upon a career in one of the professions, should suffer any prospect of immediate advantage to divert him from securing the great gain that will ultimately be his if he takes the college course. No man, whatever his character or his attainments may be, can take that course without being benefited by it; and this is the same thing as saying that, other things being equal, a college-bred man is the superior of a man who has not enjoyed that training.

Still, it seems to us preposterous to say that he who took the degree of bachelor of arts twenty years ago had a better preliminary training for medical study than he who has recently prepared himself for the college course, but, for one reason or another, has not taken it; or to say that he is any more qualified for membership in an organization that aims at raising the standard of medical education in this country. We can not suppose that the founders of the American Academy of Medicine entertained ideas radically at variance with this view of the matter, but it was quite natural that they should think it desirable to specify a definite criterion, even recognizing the full extent of its fallibility. But the natural course is not always the wisest, and possibly the academy might do as much for the advancement of its purpose as it is doing now, if it were to relax the rigor of its arbitrary test.

One of its members read a paper at its annual meeting, in October last, taking rather a gloomy view of the work to be

done in bringing the medical profession to an equality with the professions of law and divinity in the matter of general education. It was shown that there was a larger proportion of college-bred men among clergymen and lawyers than in our own profession, so far as indicated by college catalogues giving the pursuits engaged in by graduates of those institutions. This comparison, however, strikes us as not quite to the point. The real question is, it seems to us, how the medical profession of the present time compares with that of twenty, thirty, or forty years ago, rather than how it compares with other professions. We are inclined to think the college men are entering upon the study of medicine in increasing proportion year after year; and not only that, but that better men, be they college graduates or not, are coming into the profession every year. On the whole, then, while the American Academy of Medicine may have impaired its own importance by the course we have referred to, we are quite of the impression that the cause it aims to serve is making notable progress.

THE PASSENGER-STEAMSHIP MEDICAL SERVICE.

DURING the last few months, several of our English contemporaries have commented with a good deal of vigor, and certainly with the greatest justice, on the parsimony which the great Transatlantic steamship companies display in dealing with the medical officers of their passenger vessels. They have also presented to their readers abundant statements of fact, largely in the form of letters from ships' surgeons, on which to found their pleas in behalf of this much-enduring and long-suffering class of men. It is no doubt largely due to this action on the part of the London medical journals that the British Board of Trade has begun to stir in the matter. The result will probably be, that the position of medical officer on board these vessels will be made somewhat more bearable. We wish we could add that it was likely to be made what it should be, considering the importance and the arduous nature of the service, and the attainments and character of the gentlemen engaged in it.

Whatever our admiration may be for the mighty and intricate compound marine engine, it is but a dumb machine after all; and yet at least four engineers are ordinarily employed on vessels of the class we refer to. We do not deny that this number of men should properly be kept on duty in the engineer's department; indeed, we have no hesitation in conceding the wisdom and necessity of such a course, provided the machine is expected to perform creditably. What we would call attention to, however, is the incongruity between this wise provision in one department of a ship's company and the utterly inadequate comprehension of the proper habilitation of another, no less necessary, so uniformly shown by shipowners. Not only has a ship's surgeon to satisfy the whims and caprices of the cabin passengers, to entertain them at table, and in a thousand ways to mingle gallantry and *bonhomie* with the grave duties strictly incident to his professional work among them, but, in addition, he has often to attend to the multifarious ailments of a thousand or more steerage passengers, most if not all of whom, however hale and robust they may have been on

undertaking the trip, have the depressing effects of seasickness and homesickness added to the ordinary vicissitudes that attend the health of man, to say nothing of the changed conditions of their daily life and the bewilderment that comes of fear in regard to present dangers and of anxiety in regard to their future career in a strange land. Furthermore, he has to act as dentist and pharmacist, to battle with the cook in order to get proper nutriment served to the sick, and to assume the real responsibility for the sanitary condition of the ship—a responsibility all the more weighty because unattended with any power of command. If things go wrong in the matter of the bill of health, he is held to answer; if they go right, the captain has ordered them.

Taking into account, then, all that is heaped on the medical officer of a ship, all the attainments and discretion that must be his, in order that the duties of his department shall be properly fulfilled, is it not right and proper that he should be adequately paid and decently bestowed? Why should he be lodged in a quarter of the ship unavailable for other purposes, or, being so lodged, be made to harbor an apothecary's shop within his narrow quarters? Many members of our profession cross the Atlantic every year, and they have it within their power to a certain extent to aid in rendering the status of the marine medical officer more consonant with what it should be, mainly by giving the various companies to understand that, other things being equal, their individual patronage, and, so far as their influence goes, that of their friends, shall be given to the line that shows the best provision for its medical officers. We are quite sure that they need but a hint to lead them to this just and fraternal course.

THE MEDICO-LEGAL SOCIETY AND THE CORONERS.

THE Medico-Legal Society of this city, at a recent meeting, decided to adopt the report of its Special Committee on Coroners, which is in the form of a bill, and directed that it be sent to the Legislature at Albany, with a request for consideration and adoption.

The main points of the bill are the abolition of coroners' juries, and the appointment of one medical examiner for every Assembly District in each county, except Kings, where there are to be two for the whole county, and in New York, where there are to be four. These examiners are to have charge of views and autopsies, and are required to report to the Coroner when occasion demands.

The following are the sections of principal interest in the bill:

Section 1. "The County Judge of each county in this State, except New York, shall, on or before the first day of July, in the year one thousand eight hundred and eighty-three, appoint a medical examiner in and for each Assembly District in his county, except in the County of Kings, in which there shall be appointed two for the whole county; and in and for the City and County of New York the Chief Justice of the Court of Common Pleas shall within the same time appoint four of such examiners for said city and county; such medical examiners shall be able and learned in the science of medical jurisprudence, who shall have been in the active practice of their profession for at least five years; such medical examiners shall be selected and appointed without reference to political or partisan consid-

erations, and solely by reason of their fitness and professional attainments for the office."

Section 2. "The examiners so appointed shall hold their office for the term of seven years, and until their successors shall be appointed and enter upon the duties of their office, but they shall be liable to removal by the said judges appointing them, or by their successors in office, for cause shown after service of written charges and opportunity afforded for defense. . . ."

Section 3. "In the Counties of New York and Kings each of the medical examiners so appointed shall receive in full, for all services performed by him under this act, the sum of five thousand dollars per annum, to be paid quarterly out of the treasury of said counties, respectively; and in other counties of the State the said examiners, respectively, shall receive for each view made by him five dollars; for a view and autopsy twenty dollars, and travel fee of five cents per mile to and from the place of view, to be paid by the County Treasurer upon proper authentication of the charges and approval of the District Attorney."

Section 4 provides that the medical examiners in counties other than New York and Kings shall execute a bond with sureties in the sum of \$500, and in New York and Kings Counties they shall execute a bond in the sum of \$5,000.

Section 5 provides that if the Board of Aldermen of any city other than New York and Brooklyn deem it necessary to have a separate medical examiner, they shall so certify to the County Judge, who shall thereupon appoint such examiner.

Sections 6 and 7 give the duties of the examiners, and they are as follows in full:

Section 6. "The Medical Examiner who shall be appointed and qualify pursuant to this act shall make all the examinations as hereinafter provided, upon view of the body of any person reported or supposed to have been slain or suddenly died or dangerously wounded, or to have died from criminal violence, or by a casualty, or suddenly when in apparent health, or when unattended by a physician, or in any suspicious manner."

Section 7. "Whenever a medical examiner shall have notice that there has been found, or is lying within his district, the body of a person dead or wounded, as stated in the last above section, it shall be his duty to visit and take charge of the body, carefully examine the same, and diligently inquire into the cause and manner of the death or wounding, and make an autopsy, if it shall appear to be necessary, to ascertain the cause of death, or whether a crime has been committed, contributing thereto; and if it shall appear to said examiner that there is no reason to suspect that a crime has been committed which occasioned or contributed to the death, he shall thereupon make a careful statement in writing in duplicate, setting forth every fact and circumstance tending to show the condition of the body, and the cause and manner of death, and the grounds of his conclusion, together with the names and addresses of any person or persons by whom such facts and circumstances may be known, which statement so made by said examiner, or caused to be made by him, shall be subscribed by such examiner; and one without delay shall be delivered to the nearest coroner, and the other to the District Attorney of the county, whereupon the examiner shall give the requisite certificate of death; and in case the person whose body shall have been so examined shall appear to have been a stranger or non-resident of the county, and no relatives or friends shall undertake the burial, he shall give order for the burial, and the expense thereof shall be paid upon the examiner's certificate to the reasonableness thereof. If an autopsy shall be made, it shall be so made as to enable a record thereof to be made and preserved, and to show the actual state and condition of all the vital organs, and in full detail,

and shall be reduced to writing, and signed by the examiner making the same."

Sections 8 to 12 provide for the manner in which inquests shall be held upon the bodies of persons whose death has been caused by violence or in regard to which there may be doubts, and requires the Coroner to take testimony as to all the facts and circumstances, and to file a report, together with the testimony, in the office of the District Attorney for the county. Authority is also given to the Coroner to issue process for the arrest of any persons suspected of complicity in the unlawful act or acts resulting in death.

Section 13 is as follows: "The Medical Examiner may, if he deems it necessary, call a chemist to aid in the examination of the body or of substances supposed to have caused or contributed to the death, and such chemist shall be entitled to such compensation for his services as the Medical Examiner shall certify to be just and reasonable, the same to be audited and paid by the Treasurer of the city or county, as the case may require, on approval of the District Attorney."

Sections 14 to 16 provide for the attendance of witnesses and their fees, require any person knowing of the death or mortal wounding of any one to notify forthwith the nearest medical examiner; and allow suitable compensation to be made to any one bringing to land the dead body of a person found in the harbors, rivers, or waters of the State.

Section 17 provides that the Medical Examiner shall take possession of any money or personal property belonging to the deceased, and deliver it to the persons entitled to its custody; and, if unclaimed, such money or personal property is to be handed over to the Public Administrator or County Treasurer, as the case may require.

Section 18 relates to the payment of the necessary expenses connected with each view or autopsy.

Section 19 allows the nearest examiner to make a view or autopsy in case the examiner in the Assembly District where the body is found is unable to make such view or autopsy.

Section 20 provides that the Coroner must be an attorney and counsellor at law of at least five years' practice, and allows the Board of Supervisors in each county except New York to reduce the number of coroners to one, and in New York County to two.

Section 21 forbids the Coroner to practice in any matter arising out of the duties of his office.

Section 22 forbids the interment of any body, except upon the certificate of death, to be granted by the medical examiner having charge of the matter.

Section 23 abolishes coroners' juries, and inquests held by them.

THE NEW YORK MEDICAL MISSION.

THE New York Medical Mission held its annual meeting recently in the rooms of the Young Men's Christian Association. The object of the mission is to combine religious instruction with free medical attendance to the poor, and during 1882 this object was carried out so far as the limited means of the mission would allow. The main dispensary is now at 81 Roosevelt Street, having been removed there in May, 1882, and in August a branch was opened at the Church of the Reformation in Stanton Street.

Since June, 1881, when the first dispensary was opened, 12,614 cases have been treated at the dispensaries, and 2,491 visits paid at the houses of those suffering from disease. The receipts during 1882 were \$2,187.26, and the expenses slightly larger. It is hoped by the managers that a medical mission institute, modeled after one at Edinburgh, for the training of per-

sons to serve as medical missionaries in foreign lands, can soon be established.

The officers of the mission are: Dr. Alfred C. Post, President; Dr. G. A. Sabine and Dr. W. H. Thomson, Vice Presidents; Benjamin C. Wetmore, Treasurer; Edward A. Jones, Secretary, and Dr. George D. Dowkott, Medical Superintendent. In addition to these officers, the Board of Managers consists of Cornelius Vanderbilt, James Stokes, Robert Hoe, Jr., Anthony M. Cochrane, William H. Hendrickson, Leighton Williams, and Dr. D. B. St. John Roosa, Dr. Alfred L. Loomis, Dr. L. Bolton Bangs, Dr. Richard Holly, Dr. James R. Leaming, and Dr. Francis H. Markoe.

A MALPRACTICE SUIT AGAINST AN ESTATE.

IN New Hampshire, not long since, a suit was brought by a patient against the administrators of a deceased surgeon for injuries alleged to have been inflicted by the unskillful treatment of the surgeon. The suit was dismissed for technical reasons, which will be of interest, as similar cases may often arise. The Court held that, as the action was for personal injuries, it could not be maintained after the death of the surgeon. It is the theory of the law that an action for injury done to property is not affected by the death of the alleged wrongdoer, but can be brought against his legal representatives; but that an injury to the person, as in the case above cited, is of an entirely different character, and does not survive the death of the surgeon who is charged with inflicting the injury. This may seem rather a narrow rule, and it may not be followed in all the States, but it has in it the basis of justice, as there would seem to be little chance of defending such a suit when the most important witness as to the alleged malpractice—the surgeon himself—is dead and gone. The condition of the patient might be the result of other causes besides the unskillful treatment of the surgeon, but it would be difficult to show such facts after the death of the only person fully conversant with the case.

Proceedings of Societies.

NEW YORK SURGICAL SOCIETY.

A STATED meeting was held January 9, 1883, Dr. T. M. MARKOE, President, in the chair.

EXCISION OF THE KNEE JOINT.—Dr. C. T. POORE presented three patients upon whom he had performed excision of the knee joint. All the operations were performed with the circular incision. The antiseptic spray was not used. The wounds were thoroughly washed out with a solution of carbolic acid, one to forty. The bones were sutured together with wire sutures, and drainage tubes passed through the anterior flap around the joint and out through the popliteal space. To secure immobility, the limb was placed upon a posterior splint and a plaster-of-Paris bandage applied from the toes to the groin, an interval being left at the point of operation.

The first patient was a boy, sixteen years of age, with a rather poor family history. He had pulpy disease of both knee joints. In the right the tibia was dislocated backward and flexed at a right angle with the femur. The right knee joint was excised in 1879, and the result was firm union of the tibia and femur, with two inches shortening. At the time of dismissal from the hospital he had quite good flexion of the left knee, and was able to act as an assistant to a surveyor, which compelled him to do considerable walking. Last summer he fell and injured the left knee. This was followed by swelling and pains, and it had

left that joint stiff in a straight position. Notwithstanding this, he was able to get about very well.

The second patient was a girl, thirteen years of age, who fell and injured the left knee joint six years ago. The injury was immediately followed by swelling and pain, and six weeks subsequently an abscess formed, which was opened in Bellevue Hospital. She was subsequently a patient at Roosevelt Hospital, where several large abscesses formed about the joint and the lower portion of the thigh and were opened. She left there considerably improved, but with the limb flexed at nearly a right angle. She subsequently was admitted to St. Mary's Hospital, where Dr. Poore operated upon her, in May, 1882, by removing a V-shaped portion of the lower extremity of the femur. There was considerable shortening after the operation, and there still remained a small external ulceration, but no exposed bone.

The third patient was a boy who had suffered with abscess from Pott's disease, and also had osteitis of the head of the tibia which opened into the joint. Excision was performed in the usual way, and there was nothing peculiar concerning the subsequent progress of the case except that on the following day the temperature rose to 105.5° Fahr., but fell to the normal within a few hours, and afterward there were no unfavorable symptoms except the occurrence of a small slough upon one side of the joint, for which Dr. Poore was unable to account. In this case there still remained a small sinus, into which a probe could be introduced, but he was unable to detect any rough bone.

Dr. Poore had also operated in another similar case, and expected that the patient would be present, but for some reason was absent. In all the cases the wounds healed promptly, and all the patients were up on the fortieth day.

FIBRO-SARCOMA OF THE PAROTID.—Dr. H. B. SANDS presented a patient who illustrated the fact that, in the case of tumors which are unpromising in character, occasionally the disease does not return after removal, or, at least, for a very long period. This man, now thirty years of age, came under his notice in June, 1870. At that time there was a tumor in the parotid region, which was believed to involve the parotid gland. It was situated upon the right side, occupied the entire parotid region, and formed a rather low but extensive growth, which caused prominence of the ear, was exceedingly firm, and entirely immovable. It had then been growing for about five months. The case was regarded as unfavorable, on account of the rapidity of the growth of the tumor and the extent and firmness of its adhesions to the deep parts as well as to the skin. Dr. Sands decided, however, to attempt to extirpate it. When the flaps of skin had been raised, a small portion of the growth was removed, and was examined with the microscope by Dr. Delafield, who found it to be a fibro-sarcoma. The piece removed contained a large proportion of fibrous tissue, with cell elements of a round shape. The diagnosis was confirmed by the subsequent examination of the tumor after its removal. The tumor extended into the deeper portion of the neck, and was attached to the styloid process, and was so incorporated with the adjacent tissues as to make the operation very unsatisfactory. The lower surface of the skin was invaded by the morbid growth, being completely incorporated with the whitish tissue of the tumor. Notwithstanding the difficulty of the operation, the patient made a good recovery. Some sloughing of the cutaneous flaps occurred, but beyond this no accident followed the operation, and the patient left the hospital six weeks afterward with the wound healed. Before the operation the facial nerve was intact, but immediately afterward the parts supplied by it were found to be completely paralyzed. The paralysis still remained, although hardly noticeable when the features were in repose. Dr. Sands had watched the case with a great deal of

interest, and made his last note about one year ago, at which time there was no evidence of recurrence of the disease. About three months ago the patient discovered some swellings upon the right side of the neck, and now six or eight flat movable tumors could be felt, extending along the posterior edge of the sterno-mastoid muscle down to the clavicle, the largest being about an inch in breadth and length, and about half an inch in thickness. They are very firm, being in this respect like the original tumor. The skin in the neighborhood of the operation seemed to be sound.

TRACHEOTOMY AS A PRELIMINARY TO CERTAIN OPERATIONS.—Dr. CHARLES MCBURNEY read the following paper:

Mr. PRESIDENT: While I have nothing that is really new to offer upon the subject which I have chosen, it appears to me that there are some points in connection with it which are worthy of discussion. The operations which are referred to in the title of this paper are operations for the removal of the upper or lower jaws, particularly when these parts are involved in the growth of large tumors; operations for the removal of large or vascular naso-pharyngeal polypi, or of tumors springing from the tonsils, or walls of the pharynx, or tongue, or palate; and also operations which involve the extirpation of the entire tongue, or of the larynx and adjacent parts; in fact, all operations in the course of which considerable risk is run of having blood or diseased material pass into the lungs or stomach. The old method—so frequently made use of before the introduction of anæsthetics, and still recommended by some—of placing the patient in the sitting posture, with the head upright or hanging forward, offers certainly very slight advantage. Some of the blood lost will, to be sure, flow out of the mouth; but the tendency of such blood, as it finds its way backward, to pass down the trachea and œsophagus is greater in this position than in any other. Moreover, the difficulty of retaining a patient who is under the influence of an anæsthetic in this position, and the awkwardness in applying artificial respiration, or of doing tracheotomy if suddenly demanded in the course of the operation, and the greater liability to syncope, form very serious objections to it.

Rose's position, or the hanging head, was an ingenious device, undoubtedly applicable to certain cases. Rose placed the patient with the head and neck projecting beyond the end of the operating table, allowing the head to fall so far backward that its vertex pointed to the floor. The naso-pharyngeal cavity thus becomes a cup placed on a lower level than the orifices of the trachea and œsophagus, and blood collecting in it flows more readily out of the nose, provided the nares do not become plugged with clots, than down the pharynx. From this cup-shaped, dependent cavity blood can be sponged and readily removed. This position appears to me to recommend itself in cases where hæmorrhage will probably not be great, and when the seat of the operation is the palate or mouth, as in cases of cleft palate, or when portions only of the jaws are to be removed without external incisions. But in cases where hæmorrhage is very great, or the disease to be removed involves the naso-pharyngeal cavity itself, the Rose position favors the accumulation of blood at the very place where it is most objectionable. Moreover, patients are not infrequently met with who behave very badly when thus placed while under the influence of an anæsthetic, the tension of the larynx and trachea apparently producing a spasm of the glottis, which becomes dangerous if not relieved.

Both the upright and the hanging head positions are exceedingly awkward in the administration of the anæsthetic, it being necessary to remove the cone as soon as the operation is begun, and to interrupt the operation at intervals in order to give more anæsthetic. This last is a serious objection, for not only is the

operation much prolonged, but blood is frequently lost in large quantities while the mouth and nose are concealed from view. The gravity of extensive and bloody operations about the mouth and adjacent parts has been frequently illustrated in the last few years, not a few such operations having resulted fatally to the patient, either at the time of operation or within a few hours thereafter. Moreover, the nature of the diseases for which most of these operations are undertaken requires that they should be performed not only with expedition, but with great thoroughness.

I have myself seen a patient, from whom one upper jaw was being removed, die on the table from the entrance of blood into the trachea, and the cases are numerous where, in the course of similar operations, tracheotomy has become necessary to save the life of the patient. No operation can be looked upon as unnecessary which promises immunity from such dangers.

I do not know who first suggested a preliminary tracheotomy in the class of cases which I have referred to, but to Trendelenburg is due the credit of giving to the profession an apparatus complete enough to be of very great service in such cases. The original device consisted of a very long tracheal tube surrounded in its tracheal portion with a thin rubber bag, which could be sufficiently inflated, by means of a connected bulb, to completely fill the trachea. To the outer end of the tracheal tube an elastic one, several feet in length, was fitted, at the free extremity of which was a reservoir to receive the anæsthetic. The objections to this instrument, as so arranged, were several. In the first place, if the rubber bag was over-distended, which might easily happen, it might burst, or could force its way down so as to close the lower end of the tube. This latter accident occurred to me in one case, and gave considerable trouble. The tracheas of some patients do not bear well the lateral pressure of the bag, violent cough being induced when it is distended. This I have also seen occur. To remedy the first objection, as well as to get rid of the outer bulb, and to obtain greater nicety in filling the trachea, Dr. Friedrich Lange devised the instrument of which I have a model here. Dr. Lange has already shown this instrument to the society. It seems to me to fulfill the indications for either temporarily or permanently tamponing the trachea better than any which I have seen.

Michael, of Hamburg, surrounds the cannula with compressed sponge. Over the cannula and sponge he places a sac of gold-beater's skin soaked in a solution of rubber. A little water having been thrown into this sac, the sponge swells and effectually closes the lumen of the trachea.

Dr. Foulis, of Glasgow, in extirpating the larynx, tamponed the upper end of the divided trachea with a lead cannula, which was surrounded with a rubber ring, thus completely closing the air tube and effectually preventing the passage of blood into it. Dr. Lange recommends in similar cases a leaden cannula surrounded with punk, which material is light, and does not allow of the passage of fluids through it. These cases, however, hardly come under the head of preliminary tracheotomy, the tamponing of the trachea being necessarily done in the course of the operation.

The objects of the preliminary operation are several. Firstly, to prevent the passage of blood down the trachea. Secondly, to facilitate the continuous and safe administration of the anæsthetic. Thirdly, to avoid the possibility of being called upon in the course of the operation to open the windpipe under forced and adverse circumstances. Fourthly, to permit of a continuous, rapid, and *complete* operative procedure, and thus avoid much unnecessary loss of blood. Fifthly, to secure to the patient after the operation an abundant supply of air which is not contaminated by the discharge from the seat of operation.

The prevention of the passage of blood down the trachea is a danger which always threatens in bloody operations about

the upper air passages, and enough fatalities have occurred from this cause to make it worthy of consideration, death having been produced on the operating table, and pneumonia having been induced in other cases from the entrance of blood into the air cells. The *unnoticed* loss of blood is, I am sure, in some cases very great when the operator depends upon sponging out the pharynx during the operation, blood passing down the trachea, and more especially down the œsophagus, in large quantities. When the trachea is tamponed so as to permit of a continuous administration of the anæsthetic through the cannula, this loss of blood can be largely avoided, for continuous pressure can be kept up upon bleeding points during the course of a long operation, which, of course, can not be done when the anæsthetic is being repeatedly administered through the mouth and nose.

The continuous and safe administration of the anæsthetic has also the great advantage of not only saving time in operating, and hence some exhaustion to the patient, but permits the operator to deliberately carry out his dissection. In cases of malignant disease, as of the upper jaw, tongue, and pharynx, I am sure that complete extirpation of the disease is far more likely to be attained when the tracheal tube is used than when it is not. Of course, a less rapid recurrence of the disease would then be expected.

The advantages claimed for this preliminary operation can be obtained in a manner somewhat different from, and, in my opinion, better than, that proposed by Trendelenburg. Instead of the long and heavy tube used by Trendelenburg, one very like an ordinary tracheal tube may be used, into the outer end of which the tube to conduct the anæsthetic from the reservoir can then be fitted. It is not necessary to tampon the trachea itself, but this can be very efficiently done by packing the lower part of the pharynx with a sufficiently large sponge, to which a string is attached to facilitate its removal. Kocher recommends this plan, but I first saw this method made use of by Dr. George Peters, and I have seen it used by others, and have used it myself with complete success. It is not perfect, however, for sponge, no matter how tightly packed, will permit of the passage of fluid. I would suggest, as an improvement on the ordinary sponge packing, a sponge about half covered with thin rubber. The rubber side being pushed down and covering the whole lower surface of the sponge, would prevent any drainage through.

There are some questions in regard to this preliminary operation which I am not able to satisfactorily answer to myself:

Firstly, is there any advantage gained by doing the tracheotomy some time in advance of the primary operation? Max Schüller, in his "Monograph on Extirpation of the Larynx," recommends that the tracheotomy be done some weeks in advance, and claims that by so doing the risks of subsequent pneumonia and bronchitis are lessened. Out of fifteen cases of extirpation of the larynx which Schüller collected, five died of pneumonia, and one suffered from severe bronchitis. But I am not able to satisfy myself that any real advantage would be gained by doing the tracheotomy a long time beforehand, except in cases where the difficulty of breathing through the natural passages caused great impairment of health.

In answer to another question, I think a more positive reply can be made.

How long shall the tube be left in position after the operation?

It should, of course, be left in all cases where there is reason to fear that the upper orifice of the larynx may become occluded by inflammatory swelling. But another reason for retaining the tube in position is to enable the patient to obtain a supply of pure air during the suppurative stage. Kocher not only keeps the tracheal tube in, but also the sponge tampon in the pharynx,

the sponge being soaked in a five-per-cent. solution of carbolic acid, and removed only to allow the patient to be fed. This method also enables the surgeon to treat the wound nearly antiseptically, the nostrils being plugged, the mouth closed, though drained with a tube, and frequent washings of the whole cavity being resorted to. I am inclined to think that the comfort and safety of the patient would be increased by following this method in all extensive operations. Michael, Schüller, and others also claim that by keeping up for some time this permanent closure of the larynx, patients are much less likely to suffer from *Schluckpneumonie*, or foreign-body pneumonia. I have myself made use of a preliminary tracheotomy but three times. In one of these the Trendelenburg apparatus gave me great trouble, in consequence of the extreme elasticity of the rubber bag which folded over the end of the cannula when it was distended. In the other two cases for removal of naso-pharyngeal polypi, I made use of a simple cannula, and plugged the lower part of the pharynx with sponge. This method gave me great satisfaction.

Dr. POST said he had performed preliminary tracheotomy three times; twice upon the same subject after a long interval. In two out of the three times the operation was performed without the introduction of the tube according to the method of Dr. Martin, of Boston, which he had found very satisfactory. He introduced a large sponge into the fauces, and only a few drops of blood escaped into the trachea. With the open trachea he found it very easy to sponge out whatever blood might enter. He had found great facility in performing tracheotomy as a preliminary operation, and believed that all the advantages which Dr. McBurney had attributed to the operation were derived from it, and that there was no additional risk from performing it.

Dr. G. A. PETERS had performed preliminary tracheotomy three times. In one case he had used Trendelenburg's tube. Having seen the difficulties which Dr. McBurney had mentioned concerning the use of this tube, Dr. Peters had had the instrument modified, and supposed that he had got rid of the danger, but he then found that another troublesome symptom resulted, namely, a persistent coughing the moment the bag was distended, although he had taken pains to measure the exact amount of air which was necessary to distend the bag up to a certain point. After that he threw Trendelenburg's tube aside entirely, and had since used only an ordinary tracheal tube, stuffing the fauces with sponge. This method had given him much satisfaction. The anæsthetic could be administered without interruption, and he had had no trouble from blood running into the stomach or trachea. In one of the cases where he used Trendelenburg's tube the patient had a cough which lasted for some time, but he attributed it rather to pressure from the instrument than to entrance of blood into the lungs. He had, however, concluded that the most satisfactory method was to use the ordinary tracheal tube and stuff the fauces with sponge.

Dr. GERSTER had performed preliminary tracheotomy once, and in a case previous to exsection of half of the larynx. In that instance he used Trendelenburg's instrument, and just after the operation had been commenced the India-rubber bag ruptured. He was obliged to remove the cannula and replace the bag by folds of gauze bound in position by silk. The cannula was then reintroduced, and answered the purpose very well. With regard to one object mentioned by Dr. McBurney concerning tracheotomy as a preliminary operation, his own opinion was that preliminary tracheotomy, performed a good while before the secondary operation, afforded many advantages over its performance simultaneously with the operation for the removal of the disease. He recalled several instances where he had been present and in which considerable time was consumed in performing the preliminary operation; thus, in one instance, half an hour was occupied, and it could readily be seen that in

an anæmic patient the performance of the preliminary operation would necessitate the longer continuance of the anæsthetic, and, therefore, an undesirable exposure to shock. Tracheotomy upon a grown subject was rather an indifferent operation if properly performed and the necessary care was bestowed upon the after-treatment. The operation was not very serious, and the patient's respiratory tract became accustomed to the tube, and he therefore believed it to be advantageous to first dispose of this liability to accident before the operation proper was to be performed.

Dr. W. T. BULL had had occasion to perform tracheotomy as a preliminary operation in four cases; three times for extirpation of a portion of the tongue, and once for removal of a recurrent growth from the side of the pharynx. In all instances he had used the ordinary tracheotomy tube. He had not seen any advantage following the use of the tube with the rubber bag. On the contrary, he had thought that it interfered with expulsion of mucus from the trachea. He had not left the tube in more than forty-eight hours. He regarded the suggestion made by Dr. McBurney with reference to permanent tamponing the trachea after the operation as a very valuable one, and as an important addition in the after-treatment.

Dr. BRIDGON remarked that he had been prejudiced against Trendelenburg's tube, and had simply used an ordinary tracheal tube, packing the fauces with sponge. The operations which he had performed, however, had always been laryngotomies. He thought it unnecessary to make the operation for the introduction of the instrument a tedious one. He believed there was no danger from hæmorrhage, which always ceased after the introduction of the tube. He had been favorably impressed with Nussbaum's method of narcosis in these cases; that is, to precede the anæsthetic by the use of a large hypodermic injection of morphine, perhaps fifteen drops of Magendie's solution. This is to be followed by the use of an anæsthetic, and he had employed chloroform, administering it to the production of moderate narcosis, and then performing tracheotomy. He had been surprised at the small quantity of chloroform required to maintain insensibility. In one operation not more than three drachms and a half were consumed, and the patient was able to assist at the operation, was sufficiently conscious to be able to empty the mouth of blood, etc., and yet he was placed beyond sensitiveness to the knife. He had not seen Trendelenburg's tube used without the occurrence of some disagreeable accident.

Dr. WEIR had performed preliminary tracheotomy in one case with advantage, using only the ordinary tracheal tube, packing the fauces with sponge, and maintaining anæsthesia through the mouth of the tube. He was led to adopt this method because of having previously resorted to Rose's method in the removal of a naso-pharyngeal growth. It was found that the stretching of the neck unduly compressed the trachea and interfered with respiration. In the second case, of a similar nature, the use of tracheotomy permitted more satisfactorily the dependent position of the head. He was, however, loth to adopt preliminary tracheotomy, as a rule, because he believed the operation was associated with considerable risk in itself. He had been led to this conclusion from studying the cases in which the operation had been performed for the relief of syphilitic disease of the larynx without much dyspnoea, and for rest of that organ. In two such cases pneumonia had occurred. He had also seen several instances of cut throat where only the trachea had been incised, and where the patient's condition was good, and subsequently chest symptoms developed. He would not resort to the preliminary tracheotomy unless the subsequent operation was evidently to be an excessively bloody one, and the risks not to be avoided by position, slight anæsthesia, etc.

Dr. SANDS could recall only a single case in which he had used Trendelenburg's tube, and in that instance it worked very well. Pains were taken to prevent the expansion of the rubber bag over the lower orifice of the cannula, and the only inconvenience observed was the occurrence of coughing, as already mentioned by Dr. Peters. He thought that if the instrument could be used with success so far as to completely occlude the trachea, it would form a very valuable invention. He had noticed, however, that it frequently failed to accomplish the purpose for which it was designed, as it allowed blood to pass down into the trachea. He had many times excised tumors of the pharynx and tonsils, or had removed the upper jaw without encountering the least danger from the entrance of blood into the air passages. He thought that if three points received due attention during such operation, little or no danger need arise from this cause. In the first place, the patient should be placed in a chair with his head inclined slightly forward; in the second place, profound anæsthesia should be avoided, as the blood would enter the larynx only when it was rendered quite insensible, as was the case with deep narcosis; in the third place, he thought it was desirable to operate quickly. In two cases of naso-pharyngeal polypus which he had removed some years ago, no blood entered the trachea so far he could discover, and the patients made a good recovery. The principle of tamponing the trachea was important, however, and he would be glad to see it realized in practice. His own experience had not led him to regard tracheotomy as an operation likely to cause pneumonia, yet he was not prepared to deny that such might sometimes be the case.

Dr. GERSTER said that the weight of Dr. Sands's remark was largely in the proposition which he made not to carry the anæsthetic too far. He had had occasion to perform several operations upon the upper jaw, and had always been careful not to place the patient too profoundly under the influence of the anæsthetic; only just sufficiently so that he would not resist violently enough to prevent finishing the operation. In all these cases he had not seen any difficulty whatever, because when any blood entered the trachea the sensitiveness of that tube induced reflex movements which caused an immediate rejection of the blood.

Dr. STIMSON doubted whether the patient could always be depended upon to give evidence of the presence of blood in the trachea by cough. He had one patient whom he had anæsthetized six times for the removal of a constantly recurring growth in the upper maxilla. The woman took ether badly, and complete anæsthesia was never obtained for more than one or two minutes at a time. In that case he had seen the pharynx so full of blood that air bubbled up through it, and yet the patient never coughed. He was not positive that blood made its entrance into the trachea, but it was in the pharynx in large quantities, and air bubbled up through it. No bad consequences followed.

The PRESIDENT remarked that during the last fifteen or twenty years he had performed quite a large number of these operations, and he believed that by simply bearing in mind the suggestion made by Dr. Sands no difficulty need be experienced with reference to a serious quantity of blood getting into the trachea. He believed that in a large proportion of cases the most bloody operations could be performed with safety without preliminary tracheotomy.

FRACTURE OF THE CALCANEUM.—Dr. L. A. STIMSON presented a specimen which illustrated fracture of the posterior portion of the head of the calcaneum. He believed it to be probably the result of muscular action. The patient was a man, fifty-three years of age, who was admitted to Bellevue Hospital in November last for a disease of the tibia which required amputation. Eight

years ago, while crossing the street, he was knocked down by a wagon, and received the injury which the specimen illustrated. At the time the injury was received the patient said that the skin was not bruised. The fragment was the portion to which the tendo-Achillis was attached, at least partially. It was more than an inch in length, and about three fourths of an inch in breadth. On its outer side the periosteum was complete; on the inner side there was a growth of bone which presented the appearance of having been the result of reparatory action. The fragment had united with the bone at its upper border, but was about half an inch anterior to its original position. The specimen was accompanied by photographs and a plaster cast which illustrated the deformity.

Dr. BULL thought that pure muscular action could not produce this fracture; that it was the result of direct violence.

Dr. STIMSON remarked that there were several cases upon record in which the fracture occurred as a result of muscular action.

Dr. PETERS referred to a case in which fracture occurred as a result of muscular action.

MELANOTIC SARCOMA.—Dr. A. G. GERSTER presented a specimen of melanotic lympho-sarcoma, which he removed from the neck of a man on the fourth of the present month. Three months ago the patient got heated from running about, and then sat down in front of an open window and was chilled. This was the only fact which he had been able to ascertain concerning the cause of the growth, although he did not attribute much importance to it as an etiological factor. Immediately after this occurred the man noticed a slight swelling at the corresponding angle of the jaw, which gradually increased in size. There was no sore throat following the chilling, nor nasal catarrh. The tumor continued to grow, and he consulted a physician, who proposed to inject tincture of iodine into it. At that time it was about the size of an Italian chestnut. Considerable reaction followed the injection. The tumor did not resume its former size and shape, but continued to grow rapidly, and, after three months, it attained the size of a small orange. It was situated in the upper cervical triangle, below the angle of the jaw. Laterally it was quite freely movable—not so vertically—and the skin over it was attached to the tumor. Dr. Gerster diagnosed lympho-sarcoma of rapid growth, and gave a grave prognosis. Removal was advised. The excision was not difficult. Immediately after cutting through the skin it was noticed that the mass had a peculiar dark color. On account of its appearance, and from the fact that through a slight puncture made by a hook, introduced into its capsule for the purpose of lifting the tumor up, a black material exuded, he did not attempt to remove the tumor from the capsule, but dissected out the capsule and all, keeping well to the outside of the growth. At the lower and inner part of the tumor, where it approached the superior thyroid artery, there was a dense mass of connective tissue of recent inflammatory origin, which had attached the capsule to the blood-vessel, and also inclosed a small bundle of lymphatic vessels. Immediately upon the oozing of the black, muddy material, which presented the appearance of graphite, through the opening made by the hook, he removed the instrument and applied a ligature round the point, carefully cleansed the part, and then proceeded to the dissection, without further assistance of this kind. At the upper and outer angle of the jaw a large number of lymphatic glands were found, which had exactly the characteristics of the tumor itself. They looked like a chain of small blue grapes, and burst as soon as touched. They were dissected away also with some connective tissue by which they were surrounded. When the tumor was cut open it was found to contain a cavity, in which there moved freely a black body that was surrounded by the dark

fluid material already mentioned. Microscopical examination revealed that the growth consisted almost entirely of round-celled pigmented elements, with a very sparse stroma. The mass, which was free in the center, was doubtless the original swelling or lymphatic gland noticed first by the patient in the neck. The thick melanotic envelope inclosing this glandular body apparently represented the degenerated glandular capsule. The wound was closed by a few silver-wire sutures, and healed by first intention. Early recurrence of the disease was to be expected.

FIBRO-MYOMA OF THE SCROTUM.—Dr. W. T. BULL presented a specimen accompanied by the following history: H. C. F., forty-eight years of age, and married, entered St. Luke's Hospital October 16, 1882. He gave no specific history; there was no history of cancer in the family; there was no history of traumatism. About twenty years ago the patient first noticed a small, hard lump, about the size of a marble, in the lower part of the right side of the scrotum. There was neither pain nor tenderness on pressure, nor discomfort of any kind. This mass gradually increased in size until two or three years ago, since which time it has grown much more rapidly. On admission, he complained only of the weight and inconvenience. The scrotum formed a tumor as large as a child's head, the enlargement being on the right side. The skin was normal, with large veins, the tumor was ovoid in shape, and reached upward as far as the external abdominal ring, which was dilated and filled up when standing by a hernial protrusion as large as a goose-egg, which could be easily returned. The surface of the tumor was smooth, but uneven, and marked by several rounded projections which were semi-fluctuating. The right testicle was, on its lower end, softer than the left, and apparently somewhat flattened, but movable in the tunica vaginalis. The circumference of the tumor at its upper limit was fifteen inches, at its lower part eighteen inches and was of firm, elastic consistence, and not at all tender. There was no pain, either from it or the hernia. The patient had worn no support. There were no enlarged glands. Removal was advised. The parts were washed with a solution of carbolic acid (1-40), after which ether was administered. Dr. Bull was assisted at the operation by Dr. George A. Peters and Dr. R. F. Weir. The hernial protrusion was put back and held, the tunics covering the tumor were dissected down to the capsule, and the cord exposed. A strong ligature was placed round the cord two inches from the tumor, and held by the forceps; the cord was then cut across about one inch from the tumor, and it appeared normal, but it was evident at once that the lower end of the hernial sac, which was adherent to the surface of the tumor over a space as large as half a dollar, had been cut across with it. The blood-vessels were ligated with catgut, the wound in the peritoneum was united by continuous catgut suture, the irregular portion of redundant scrotum was cut off with the scissors, a drainage tube was introduced, and the wound was closed with sutures of carbolized silk. Iodoform, peat bags, and absorbent cotton were used in the dressing. The patient was discharged from the hospital, cured, November 13th. The hernial protrusion was diminished in size, and was retained by a truss. The tumor weighed three pounds and a half. It had been examined by Dr. Satterthwaite, who reported that it was a composite growth, consisting chiefly of ordinary fibrous tissue, to a less extent of fatty tissue, and to a still less degree of non-striated muscular tissue. It was situated behind the cord, which was lengthened, but otherwise unaffected, and above the right testicle, which was normal, as was also its tunica vaginalis. The origin of the growth was apparently from subcutaneous connective tissue, its outer layers forming a sac that was infiltrated with lime salts over most of the surface, while, where depositions were absent, there were small hernial protrusions of tumor substance.

NEW YORK OBSTETRICAL SOCIETY.

A STATED meeting was held January 16, 1883, Dr. C. C. LEE, President, in the chair.

NEEDLE FOR THE PASSAGE OF WIRE OR OTHER SUTURES.—Dr. W. M. CHAMBERLAIN described a needle which he had seen used by Dr. Sands in an operation for tying the femoral artery. It was the invention of Colin, of Paris. It involved the principle of Peaslee's needle, over which, however, it possessed certain advantages. The shaft was much more slender, and near the point, which was slightly flattened, was a notch for the reception of the suture. This notch could be covered by pushing home a sliding sheath. The needle passed through the tissues with ease and without laceration, and the suture was placed with the least possible trouble.

The pathologist, Dr. H. J. GARRIGUES, presented the following reports:

I.—ON THE SPECIMEN OF CHILD'S LUNG, presented January 2, 1883, by Dr. DAWSON. The alveoli are in many places filled with round cells. In some, the alveoli have altogether disappeared, and in their stead we find large fields composed of similar cells. In some alveoli the endothelial cells are seen breaking down and forming such cells by endogenous proliferation. The connective tissue between the alveoli is likewise crowded with such inflammatory elements. Nowhere is found a fibrinous exudation. The diagnosis is, therefore, catarrhal pneumonia.

II.—ON SPECIMENS OF FALLOPIAN TUBES REMOVED by Mr. LAWSON TAIT, presented December 5, 1882, by Dr. T. A. EMMET.

1. The first specimen presents an oval body as large as a hen's egg. It is filled with pus. The wall varies from three to five millimetres in thickness, and is only composed of inflamed connective-tissue fibers interspersed with round cells, and contains neither muscular fibers nor ovarian stroma. The cavity is continuous with the caliber of the Fallopian tube, which is as thick as a little finger, and likewise contains pus. It can be cut open from one end to the other. The lumen is not enlarged. Diagnosis, pyosalpinx.

2. The second specimen is composed of an apparently healthy ovary covered all over with a false membrane, and a piece of Fallopian tube seven centimetres in length. The fimbriae are gone. In the outer half the characteristic longitudinal folds of the mucous membrane are still visible. The inner half forms a sac of the size of a pigeon's egg, with very thin walls. It communicates with the other half, but is otherwise completely closed. It contains a thick, grumous fluid, in which no organic elements can be recognized. Diagnosis, hydrosalpinx, perioöphoritis.

3. The third phial contains four pieces:

(1) A piece about four centimetres long and as thick as a little finger. Cut open, it shows various cysts of different sizes, from that of a pea to that of a small nut. Microscopical examination shows connective tissue with many arteries like that found in the interior of the ovary near the hilum. (2) A larger body of the size of a hen's egg. The cut surface shows small cysts with coagulated contents, and holes which look like the lumen of a very much contorted tube. Microscopical examination shows that the tissue is chiefly composed of smooth muscle fibers. This piece seems, therefore, to be a much changed part of a tube. It is not the ovary. (3) A cylindrical body, as thick as a finger, bent together at the ends. Cut open, it shows the folds of the mucous membrane of the tube. (4) An oval piece, of the size of a small hen's egg. It is chiefly composed of a large cyst, with thin, smooth walls, and thick, grumous contents, without formed elements. Another part shows what seems to be the lumen of the tube surrounded by the foldings of the mucous membrane. Diagnosis, hydrosalpinx.

VARICELLA SIMULATING VARIOLOID.—Dr. B. F. DAWSON reported a case of varicella occurring in the Foundling Asylum, which simulated varioloid so closely that it was mistaken for that disease by himself and Dr. Delafield. The symptoms for the first three days were those of varicella; they then became much aggravated; the eruption took on a pustular form and became umbilicated. The cutaneous lesions of the disease which afterward broke out among some of the children inmates of the institution presented the same pustular and umbilicated form, but the other symptoms were not aggravated, being purely those of varicella. He inquired if similar cases had been seen in the city recently.

Dr. A. S. CLARKE said that at Christmas time he was called to see a boy in Brooklyn who was suffering, as it was finally determined, from varicella, the eruption of which on the fourth day was exactly such as Dr. Dawson had described. The rest of the symptoms, however, were not aggravated, nor were they in other children of the family who took the disease.

Dr. H. T. HANKS remarked that two or three years ago he treated a child in whom an eruption resembling that of varioloid broke out just before the desquamation following an attack of scarlet fever should have occurred. A well-known dermatologist and two other physicians believed, with himself, that the case was one of varioloid. But the examiner from the Board of Health thought it was one of varicella. The subsequent history of the case seemed to confirm the view of the physician from the Board of Health.

THE PRESIDENT had observed that the tendency of the eruption in varicella to take on the pustular and umbilicated form was greater in ill-nourished children than in those who were well nourished and had good hygienic surroundings. This was also true of other skin affections, and the explanation was evident.

Dr. H. J. GARRIGUES remarked that about ten years ago, during an epidemic of variola and varioloid, he sent a vaccinated child, two years old, to the Small-Pox Hospital as a case of varioloid, and it was admitted as such. But the chief physician of the hospital told him afterward that the future history of the case proved that it was one of varicella. The entire body, however, had been covered with very prominent papules, on the top of which there formed quite a small vesicle that resulted in an umbilication.

Dr. F. P. FOSTER remarked that there were several affections which were difficult, so far as the skin lesion was concerned, to distinguish from the varioliform diseases. He believed there were a good many cases in which it was difficult, if not impossible, to make a diagnosis, based upon the skin lesion alone, between varicella and small-pox. Umbilication was of comparatively little importance as a differential sign; it certainly was not confined to the lesions of small-pox. It might occur in varicella, and in purely local diseases. It was not due to the essential nature of the disease, but to the course which the individual cutaneous lesions might take, occurring in those of slow growth in consequence of desiccation of the center during the enlargement of the periphery. According to this view, it was evident that any vesiculo-pustular eruption might undergo a development which would lead to umbilication. There were many features of distinction between varicella and small-pox. Perhaps no single one, however, was pathognomonic. That mentioned by Dr. Garrigues was doubtless the most distinctive—namely, the rapidity with which the eruption developed in varicella, and the fact that the lesion was a vesicle almost from the beginning, whereas in small-pox it began as a papule.

ANTE-PARTUM HÆMORRHAGE.—Dr. HANKS narrated the following cases which he had seen in consultation some time before: The first case was that of a multipara, about thirty-three

years of age, who, at 4 p. m. one day during the ninth month of pregnancy, was taken suddenly, without apparent cause, with profuse hæmorrhage. Dr. Hanks was called at nine o'clock in the evening. Her physician had been unable to check the hæmorrhage, which had continued with occasional intermissions up to that hour. Believing that he heard pulsation of the foetal heart, Dr. Hanks suggested immediate delivery. Ether was administered, the cervix was quickly dilated, by means of his own egg-shaped, hard-rubber dilators, not more than five minutes being occupied, the forceps was applied to the head, and delivery of a full-sized living child was soon effected. The woman had no further hæmorrhage after delivery, and rallied alighty, but died after twenty minutes. The placenta was expelled naturally. On examination, some indications were found which showed that there might have been a slight separation of the placenta from its attachment. But they were not positive. In no other way could he account for the hæmorrhage. The case was of interest: 1. Because a living child was extracted after an alarming and, as it proved to the mother, fatal hæmorrhage. 2. Because it illustrated the advantage of the egg-shaped hard-rubber dilators in cases where a little time might be all-important to both mother and child.

The second case was that of a woman who at the fifth month had profuse hæmorrhage, which her physician attributed to placenta prævia. Hæmorrhage occurred again at the ninth month, when the patient was in labor. Dr. Hanks, being called in consultation, found the cervix considerably dilated and filled by the placenta, which was easily detached from the border of the cervix with the hand. A little chloroform was administered, and extraction by the feet was readily effected. The child lived, and the mother, who had been nearly exsanguinated, also made a very rapid recovery. Dr. Hanks accepted the suggestion made by Dr. Mundé—that it was better to class the second case among those of placenta prævia than among those of so-called ante-partum hæmorrhage.

OVARIAN CYSTOMA TREATED BY PARTIAL REMOVAL AND DRAINAGE.—Dr. JAMES B. HUNTER related a case, which was that of an unmarried woman, twenty-three years of age, who was supposed to be suffering from an ovarian tumor dating back four or five years. The history presented no unusual features. On cutting down upon the tumor, on December 2, 1882, it was found, much to his surprise, to be a cyst firmly adherent behind the uterus, and impossible to remove. About two thirds of the tumor was then excised, some small tumors within the larger one were broken up with the hand, the cavity was cleaned, and the edges of the lower third of the sac were stitched to the abdominal wound, the upper part of which was treated according to the usual method. A hard-rubber drainage tube was introduced, and carbolized water was injected whenever there was any offensive odor. Peritonitis developing, rubber coils, through which cold water passed, were applied to the head and abdomen whenever the temperature rose much above 100° Fahr. The elevation of the temperature subsided at the end of a week, the discharge from within the sac ceased to be offensive, and the patient made a rapid recovery. Peat-bags, which seemed to answer a very good purpose, were employed afterward in dressing the wound. Dr. Hunter said, in reply to a question by the President, that peritonitis seemed to be due to the handling rather than to imperfect drainage. To a question by Dr. Chamberlain, whether any portion of the cavity of the tumor was closed by sutures separately from the abdominal wound, Dr. Hunter replied in the negative.

The PRESIDENT remarked, with reference to the method of treating the tumor as mentioned by Dr. Chamberlain, that he considered it unsafe. In a certain case in which he closed the lower portion of the sac separately with carbolized-silk ligatures

an abscess formed, free drainage was impracticable, and septic peritonitis developed. The abdominal wound was reopened, but the patient died.

DEATH AFTER TRACHELORRHAPHY.—Dr. P. F. MUNDÉ related a case as follows: Three or four weeks ago a woman entered Mt. Sinai Hospital to be treated for laceration of the cervix uteri and for accompanying cystocele and proctocele. The uterus could be drawn down to the vulval outlet by the slightest traction without producing any pain. The laceration was repaired without the administration of an anæsthetic. The patient did not complain of much pain. After the operation the temperature rose to 104° Fahr., but was reduced to 102° by the use of quinine and ice-water applications to the abdomen. Hot carbolyzed vaginal injections were given. The temperature then ranged from 101° to 103° for ten days. There was an offensive bloody discharge from the vagina. The sutures were not removed until the eighth day, when union was found to be perfect. The temperature remained between 101° and 102° for several days after the removal of the sutures, but the patient's condition was very low; she complained of no pain. Quinine, opium, and stimulants were administered, but death took place about the fourteenth day after the operation. The autopsy showed general peritonitis. There had been no signs of peritonitis before the removal of the stitches, and Dr. Mundé thought the patient must have been suffering from septicæmia. It was probable, in the light of the autopsy, that there must have been a gradual development of peritonitis from the uterine envelopes upward until it became general.

Dr. HUNTER remarked, with regard to the cause of death in the case of the patient upon whom he had operated for laceration of the cervix, and to which Dr. Mundé had referred, that there was salpingitis, and it was supposed the tube had ruptured, although an autopsy could not be obtained to demonstrate the fact. The uterine cavity was also curetted with a sharp curette at the time of the operation for repairing the cervix.

DIAGNOSIS OF URETERITIS BY PALPATION.—Dr. MUNDÉ also narrated this case, which was interesting specially with regard to diagnosis. The patient presented herself last fall with symptoms of cystitis and pain on micturition. The urine contained pus, with bladder epithelium. A prescription of benzoate of sodium and triticum repens gave considerable relief. The patient complained every day for about a week of severe paroxysmal pain extending from the lumbar region on the left side toward the bladder. Considerable opium was required to relieve pain. Dr. Mundé made the diagnosis of possible renal calculi passing down the ureter, but thought it more likely a case of catarrhal inflammation of the ureter. These symptoms disappeared under treatment, and the amount of epithelium from the bladder greatly diminished under injections. About New Year's day Dr. Mundé was again called, and found the patient suffering from all the symptoms of acute indigestion, and about ten days later she again complained of pain in the left groin. Repeated vaginal examinations revealed no abnormal condition until January 11, 1883, when, greatly to his surprise, he felt what appeared like a whip-cord, of about the size of a goose-quill, running from the neighborhood of the base of the bladder upward and backward in the direction of the vaginal pouch on the left side. It was exquisitely tender. The patient was still complaining of pain in the left groin. The urine showed ureteric epithelium and a less amount of vesical epithelium than formerly. Having never before felt the ureter through the vagina, Dr. Mundé asked Dr. Emmet to see the case. Dr. Emmet stated that it was the first instance of the kind which he had seen. They agreed in the diagnosis of ureteritis. Dr. Emmet expressed the opinion that there was vesico-vaginal cellulitis, and that the serous exudation had pressed the thickened ureter

downward, and, in order to confirm this view, suggested that the temperature be taken in this neighborhood per vaginam. The temperature was found to be 103.25° Fahr. It was not taken elsewhere, but it did not seem much elevated.

With regard to the first case reported by Dr. Mundé, Dr. HUNTER said that about two years ago he closed a laceration of the cervix in a very healthy, strong woman, thirty-two years of age, inserting about ten sutures, and three days after the operation a local peritonitis developed, and the patient was very sick, but finally recovered. The sutures were removed three or four weeks after the operation, and union was found to be perfect.

Dr. CHAMBERLAIN said that in Dr. Mundé's case, the sutures having been removed on the eighth day, and perfect union found, septicæmia from the wound seemed improbable.

Dr. GARRIGUES thought it would be interesting, in the light of recent discussions in England upon the danger of the operation of trachelorrhaphy, to know how many deaths had occurred in connection with the operation in this country.

Dr. BACHE MOE. EMMET remarked that the only fatal case which had occurred in the Woman's Hospital for a great many years was one in which the cause was directly traceable to exposure to a draught at the window.

With regard to Dr. Mundé's second case, Dr. GARRIGUES remarked that while he had never diagnosed a swollen condition of the ureter by a vaginal examination, he should think it quite possible to do so in such a case as Dr. Mundé had described, in which the location of the cord which had been felt corresponded to the position which the ureter would naturally assume in that state. He then described the relations of the ureter to the pelvic organs as he had found them in recent anatomical investigations.

HENRY J. GARRIGUES, M. D.,
B. F. DAWSON, M. D.,
FRANK P. FOSTER, M. D., *ex-officio*,
Committee on Publication.

Letters to the Editor.

CODES OF ETHICS.—A CORRESPONDENCE BETWEEN DR. AUSTIN FLINT AND DR. FORDYCE BARKER.

NEW YORK, March 19, 1883.

To the Editor of the New York Medical Journal:

SIR: Dr. Barker has kindly complied with my request, in permitting me to send you for publication a letter embracing replies to certain inquiries contained in a note to him, which is also inclosed.

[DR. FLINT TO DR. BARKER.]

"418 FIFTH AVENUE, March 17, 1883.

"DEAR DR. BARKER: From the report of your remarks at the meeting of the New York Academy of Medicine held on the evening of March 15th, contained in the New York 'Tribune,' I quote as follows:

"'Dr. Fordyce Barker, in opening the subject for debate, emphasized its great importance, but called attention to the fact that no legislative acts were efficient that were either in advance of public sentiment, or were not sustained by public opinion. The influence of all such acts could be only injurious, as leading to disregard and contempt.'

"Applying this sound principle to the question which now engages the attention of the medical profession of this State, namely, the question as to the substitution of the 'new' for the 'old code' of medical ethics: 1. Is it not unwise to consider the question as settled by a small plurality of votes? 2. In a matter of such great importance, involving as it does the liability to a division of the profession into two

parties, does not a sound policy dictate that there should be at least some approach to unanimity of sentiment? 3. Is it not best that those who entertain opposing views should be content to await longer deliberation and a fuller expression of opinions throughout the State, with the expectation that there will be a nearer approach to unanimity than is now apparent?

"In venturing to make these inquiries, on the score of a long and intimate friendship, I believe it to be quite unnecessary to say that no one can attribute your action, now or heretofore, to any other motives than a sincere desire to promote the best interests of our profession, and the welfare of mankind.

Very truly yours,

"A. FLINT."

[DR. BARKER TO DR. FLINT.]

"24 EAST THIRTY-EIGHTH STREET

"March 18, 1883.

"MY DEAR DR. FLINT: I thank you most warmly for your kind letter, which I received last evening, and which I will answer most frankly.

"I am in entire agreement with you to the extent that I should answer each of your questions unequivocally in the affirmative, and I will briefly give my reasons for thus answering each of them.

"To your first question I should reply that it is even more important that the new code of ethics recently adopted by the Medical Society of the State of New York should not be in advance of the public sentiment of the profession, and that it should be sustained by public opinion, than in ordinary legislation, because of certain peculiarities in this which do not ordinarily have any influence or bearing on the efficiency of legislative acts.

"To many minds, the new code seems to abrogate, or rather by its silence to release the profession from, certain obligations or duties which all wise and good men in the profession deem imperative; and all such must have the conviction, and act in accordance with the feeling, that moral duties are always obligatory, and that the silence of a code can not release any one from such duties. The question, therefore, must mainly rest upon the point, whether freedom of personal judgment may, under certain conditions, be wise and safe for the profession at the present time. It is not pertinent to our correspondence to discuss this point, but simply to state the fact. The new code makes no new enactments, but adds a new permissive clause, which many deem dangerous to the best interests in lowering its standard of morals and honor.

"*Second.*—It is not settled by a plurality of votes, because it will not add to the freedom of individual action on the part of those whose honest convictions are opposed to such freedom.

"*Third.*—I can not conceive that any one would hesitate to answer this question affirmatively, and it is therefore quite unnecessary to assign any reasons for such an answer. I think that we may all rejoice that in this State, for some months to come, the subject is not a question of votes, and can have no taint of medical politics.

"But, as by your kindness I now have the floor, I hope that it will not be regarded as obtrusive or presumptuous if I venture to offer some additional suggestions, not called out by you, but which seem to me pertinent.

"No one can deplore more strongly than myself the fact that the question of the old and new codes in this State has divided the profession in this country into two hostile camps, and has given rise to bitter controversy and personal feelings, which have for the time being interrupted the harmony and good-fellowship of many who are equally actuated by an earnest desire to do their duty to the profession and to the public. But the issue would have to come some time, as the opinions of some men of honest convictions, unquestioned integrity, and earnest purpose, had become so pronounced and potential that the questions involved had to be met and settled. I am so much of an optimist as to believe that the result of the discussion will be for good eventually, in elevating the standard of professional morals in relation to the conduct of physicians to each other and to the public. What is wanted is, a thorough discussion of the principles which underlie medical ethics, in the same spirit and tone which characterize the article in the "New York Medical Journal," as the commencement of a series on

the subject; and the discussion should also include the questions of the utility, expediency, and efficiency of such codes.

"If the wise and good men of the profession, holding divergent views, would unite in such a discussion, in a spirit of candor and honest purpose, would not a greater good be secured than can be attained by public debates in our large medical societies, which almost necessarily involve personal feeling and the imputation of bad motives, and in which the wish to triumph is stronger than the desire to convince? Such debates are productive of little good, as they are invariably tinged with partisan views, and so far commit both speakers and hearers to one side or the other that their minds are not in such a receptive condition as to be influenced by reason and judgment without the bias of personal feeling.

"Is it not possible, in this way, to avoid the danger of an unprofitable, useless, and unfortunate discussion at the next meeting of the American Medical Association, by postponing all consideration of the subject, and appointing a committee of representative men now holding opposing views, to report at a subsequent meeting; and thus secure a 'nearer approach to unanimity,' which you and every one else must desire and hope for. I feel some delicacy in throwing out this suggestion, because, as you know, it has generally been out of my power to attend these meetings, and I therefore may be considered as an indifferent member.

"I remain yours, faithfully,

"FORDYCE BARKER."

Very truly yours,

AUSTIN FLINT.

THE HOME FOR CONVALESCENTS.

NEW YORK, March 19, 1883.

To the Editor of the New York Medical Journal:

SIR: The managers of "The New York Home for Convalescents," of 433 East 118th Street, have understood that a like institution in another city was lately spoken of in a medical journal as the only "Home" of the kind in the United States. Accordingly, they have asked me, as one of the staff, to call your attention to the fact that a Home for Convalescents under the above name was incorporated in New York in 1880.

When first opened it had only six beds, but, by persistent efforts, the institution being supported entirely by voluntary contributions, the number has now been increased to twenty, and many more could be filled. There is no doubt that this charity gives us that which has been urgently needed.

Miss Louisa Houghton, to whom the honor of establishing the Home is very much due, was moved to the work in consequence of living near one of our wealthiest hospitals. She frequently found sitting on her steps discharged patients, no doubt well so far as actual disease went, yet weak and tired and homeless, without friends to help or work to support them. To such she felt that a couple of weeks rest in some pleasant home would often make all the difference between destruction and a successful life, and she did not rest until her Home was founded.

From the somewhat different standpoint of a hospital resident, I have had an experience fully confirming the need of such a retreat; and while I believe that many charities (either because they are unnecessary or ill-administered, or on account of relieving men of their natural responsibilities) do harm as well as good, I feel that this one, without these drawbacks, is of extreme use.

At present the limited funds of the institution confine its charity to women, and even now there is a small mortgage to be paid off. The managers, however, are anxious to open it to men.

They would be very glad to have physicians or others call at the Home, which occupies a cheerful house in a pleasant neighborhood, feeling sure any visitor will be satisfied with its arrangement and management.

If physicians, with their great opportunities of interesting others, will kindly take a little interest in an institution of such use, and so nearly connected with their own work, the future of the Home will be assured.

Yours respectfully,

STACY B. COLLINS,

106 EAST THIRTY-FIFTH STREET.

Miscellany.

CHLORAL HYDRATE AS A VESICANT.—Dr. F. D. Ritter, of Gaines, Pa., writes to Dr. T. Gaillard Thomas, as follows: "In complying with your request, I write you concerning my experience with chloral hydrate as a vesicant. Some three years ago I accidentally discovered that when powdered chloral, sprinkled upon ordinary adhesive plaster and melted by a gentle heat (not more than enough to cause the plaster to adhere to the flesh), is applied while warm to the part where the blister is wanted, within three minutes a gentle heat is felt, increasing in intensity for about three minutes more till it is like a burn, then gradually easing off, until, at the end of ten minutes, the parts feel free from pain. The secondary effect is soothing; in some instances within half an hour a second burning is felt, though not so intense as at first, nor so lasting. If, at the end of ten minutes, or as soon as pain has subsided, the plaster be taken off, the surface is found as effectually denuded as by a cantharidal plaster after six hours, though the discharge is not so great. Thus, within ten minutes the work of an old-fashioned blister is accomplished; and the great advantages of the chloral plaster over the cantharidal are: 1st. Its rapidity of action, thus relieving pain, and producing the counter-irritation upon an engorged organ before the congestive action has had time to pass into more than the congestive stage; 2d. Its ease of application; 3d. It need never be taken off to have the blister dressed; but the original plaster may remain until the sore is entirely healed, and the plaster loosens and comes off itself. This is in part my experience, and I would have given it to the profession before, but supposed it was well known."

THE NEW YORK POLYCLINIC has established a reading-room where all the leading medical journals are kept for the use of the physicians studying at that Institution. As further showing the appreciation with which the Polyclinic is meeting, we may mention the fact that it has been found necessary to add a third professor of gynecology to the faculty. We understand that the position has been accepted by Dr. James B. Hunter.

TRANSFUSION OF BLOOD.—Dr. Thomas G. Morton, of Philadelphia, is desirous of securing the histories of all unpublished cases of transfusion of blood which have occurred in this country; and, on application, will be happy to furnish blanks for their registration.—*Med. News.*

THE NEW YORK CODE OF ETHICS.—The "Medical Bulletin," of Philadelphia, thus concludes an editorial article: "The New York State Medical Society is certainly to be congratulated on the settlement of this much-vexed question, at least for the time being. We hope the action they have taken is a wise one. Notwithstanding the ardor with which the question has been argued on both sides, and the professional feelings that such an argument is liable to give rise to, nothing occurred to injure the harmonious relations of the members present. Whatever the reasons that actuated either side, they certainly can not be characterized as sinister or discreditable. We have no reason to believe that either side were actuated by secret motives, and regret that insinuations to that effect have been made. The effect of this action will debar the New York State Medical Society from affiliation with other medical bodies with which it has hitherto worked in harmony, and, as usual, this year their delegates will be refused admission as representatives to the American Medical Association."

It will be remembered that no such delegates were chosen.

MEDICAL SOCIETY OF THE STATE OF PENNSYLVANIA.—It is announced that the next annual meeting of the society will be held at Norristown on the 9th of May.

COLUMBUS MEDICAL COLLEGE.—The "Maryland Medical Journal" states that, at a meeting of the Councillors of the Massachusetts Medical Society, in accordance with the recommendation of the Committee on Medical Diplomas, it was voted that Columbus Medical College, of Columbus, Ohio, be dropped from the list of medical colleges whose diplomas are recognized for admission to the society.

PROFESSOR ALBERT SCHÄFER.—M. Albert Schäfer, F. R. S., Fulleren Professor of Physiology at the Royal Institution, and Assistant Professor of Physiology at University College, London, has been appointed Jodrell Professor of Physiology at the College, in the place of J. Burdon Sanderson, M. D., F. R. S., appointed Waynflete Professor of Physiology in the University of Oxford.—*Medical Times and Gazette.*

SMALL-POX AND IMMIGRANT INSPECTION.—The "Sanitary News" ad- duces good grounds for its fear that small-pox will soon be introduced again into the interior States, especially the West and Northwest, in the absence of proper appropriations by Congress for the work of immigrant inspection.

THE ALBANY MEDICAL COLLEGE.—At the recent annual meeting of the Alumni Association, the President, Dr. Solomon Van Etten, in the chair, an address of welcome on the part of the Faculty was given by Professor J. M. Bigelow. After an address by the President, the following gentlemen were elected officers: President, Dr. Jacob S. Mosher, Albany. Vice-Presidents, Dr. F. S. Greene, Coxsackie; Dr. B. S. McCabe, Greenville; Dr. Daniel Peabody, Springfield, Mass.; Dr. W. W. Appley, Cohecton; Dr. Robert Thomson, Troy. Secretary, Dr. Willis G. Tucker, Albany. Treasurer, Dr. G. L. Ullman, Albany. Historian, Dr. J. B. Stonehouse, Albany. Executive Committee, Dr. Mahlon Felter, Troy, Dr. A. B. Husted, Dr. D. C. Case, and Dr. T. W. Nellis, Albany. A prize of one hundred dollars was awarded to Dr. C. E. Jones, of Albany, for an essay on "Diabetes Mellitus," and the Armsby memorial prize, amounting to the same sum, to Dr. C. B. Herrick, of Troy, for an essay on "The Anatomy of the Hip Joint." The committee recommended the continuance of these prizes for another year, and announced that the prize for the best essay on "Colles's Fracture," for which no competitor had appeared, would be increased to three hundred dollars.

At the annual commencement of the college, the degree of doctor in medicine was conferred upon fifty-two gentlemen. An essay entitled "The Young Practitioner" was read by Dr. Walter Du Bois Hasbrouck. The Curator's report was presented by Dr. S. H. Freeman, commending the class, and congratulating the college on the advantages of the lengthened course. The following theses received favorable mention: "Cell Activity in Health and Disease," by Theobald Smith; "Pleuritis," by John H. Skillicorn; "Intussusception," by Charles P. McCabe.

ACQUITTAL OF DR. FORBES.—Dr. William S. Forbes, Demonstrator of Anatomy in the Jefferson Medical College, of Philadelphia, who has lately been on trial for complicity in the desecration of graves in Lebanon Cemetery, has been acquitted.

THE ASSOCIATION OF AMERICAN MEDICAL EDITORS.—The secretary of the association, Dr. J. V. Shoemaker, of Philadelphia, announces that the next annual meeting will be held in Cleveland, Ohio, simultaneously with that of the American Medical Association, on June 5 and 6, 1883, at 7.15 p. m. At the second session special papers will be read by Dr. John A. Oeterlony, of Louisville, and Dr. Alexander J. Stone, of St. Paul. The subject of the address to be delivered by the President, Dr. N. S. Davis, Chicago, is "The Present Status and Tendencies of the Medical Profession and Medical Journalism." A free discussion upon this important subject is invited, which will be open, not only to members, but to all physicians present. Dr. Marcy's address will be upon the subject of "Journalism devoted to the Protection and Concentration of Medical and Surgical Science in Special Departments."

MALARIA AT ATLANTIC CITY.—In the "Medical and Surgical Reporter" Dr. Boardman Reed discusses the healthfulness of sea-shore resorts, particularly that of Atlantic City, N. J., giving prominence to the question as to whether malaria has its origin there, in the cases of summer visitors, or if the poison, having been imbibed by their systems in the localities in which they live, is not brought to life in many instances by the indiscretions and excesses in which pleasure-seekers are only too apt to indulge at sea-side resorts, such as too frequent and prolonged surf-bathing; too hearty and late suppers, "frequently of raw oysters even in midsummer"; nights of revelry, "with or without a plentiful accompaniment of stimulants," etc. In support of the latter view, Dr. Reed cites several cases occurring in persons in whom

the malaria made itself manifest after their return from other places to Atlantic City, where they had long resided in exemption from such attacks, although he does not attribute these attacks to the pernicious habits referred to.

The initial sentence in Dr. Reed's article, "Is there malaria at any of the resorts along the New Jersey coast?" is negatively answered, by inference, in a quotation from Professor A. L. Loomis, of New York, who says: "Salt-water marshes are, as a rule, especially free from malaria; but mix salt and fresh waters, as in some of the New Jersey marshes, and you have the conditions for generating the poison. Marshes that rest on a substratum of sand are not so malarial as those that rest on limestone, clay, or mud."

Atlantic City "is wholly surrounded by unmixed salt water, besides having six miles of salt meadows behind it, and rests upon a bed of dry sand"—*ergo*, Atlantic City is of necessity free from malaria, and "physicians, in sending away patients, will do well to bear it in mind."

Besides the causes already assigned for malarial disturbances occurring in visitors to Atlantic City (the permanent residents seemingly enjoying almost complete immunity), Dr. Reed refers to the use of bad water furnished at some of the inferior houses, for which, however, there is now no excuse, as there is an abundance of the purest water to be had, having been proved pure by chemical tests, and continuous use in many houses since last August.

THE DORMITORY SYSTEM IN MEDICAL SCHOOLS.—"We understand," says the "British Medical Journal," "that a proposal to erect a building to contain about eighty sets of residential-rooms, a dining-hall, smoking-room, and committee-rooms, for the use of the students at the London Hospital, is under very serious consideration. The plans have been prepared, and are now awaiting approval. The money necessary to carry through the undertaking is, we are informed, to be raised, on the principle of limited liability, among the friends and the medical staff of the hospital. The scheme seems to be in every way worthy of praise, and ought to be a great boon to the students. Nothing, we believe, will more tend to raise the tone of student life than the multiplication of such residences. At the present time, with the exception of the College at St. Bartholomew's Hospital, and University Hall in connection with University College, both absurdly inadequate to the calls made upon them, there are no residences provided for medical students in London, who, on first coming up to town, are thrown on their own resources to drive such bargains with the lodging-house harpies as their inexperience may allow. Were every medical school provided with a well-planned building, where the sanitary arrangements were good, and the rents and other charges moderate, students would eagerly occupy all the rooms, to the advantage of their health, their morals, and their social position, and to the certain cultivation of more studious habits."

ST. VINCENT'S HOSPITAL.—A new building for this hospital is in course of construction, and we understand that, when it is finished, a change will probably be made in the service of the house staff, so that there will then be a medical and a surgical staff, of three members each. At present one staff has charge of both the medical and the surgical wards.

SULPHUROUS ACID IN SCARLATINA MALIGNA.—Dr. Keith Norman Macdonald, writing in the "British Medical Journal," denies the prevalent opinion that no reliance can be placed on any drug in cases of scarlatina, and does not hesitate in affirming that, when properly applied, both locally and internally, sulphurous acid is by far the most efficacious remedy we possess. He continues: "I have had several opportunities of testing its efficacy in some of the worst cases I have ever seen, during the epidemic which has been rife in this town (Cupar Fife) for the last two months, and I am bound to say that, of all remedial measures in this disease, it is, in my opinion, the most reliable. My treatment is as follows: The moment the throat begins to become affected, I administer to a child, say of about six years of age, ten minims of the sulphurous acid, with a small quantity of glycerine in water, every two hours, and I direct the sulphurous acid spray to be applied every three hours to the fauces for a few minutes at a time, by using the pure acid, in severe cases, or equal parts of the acid and

water, according to the severity of the case. Sulphur should also be burned in the sick chamber half a dozen times a day, by placing flour of sulphur upon a red hot cinder, and diffusing the sulphurous acid vapor through the room, until the atmosphere begins to become unpleasant to breathe.

"In the worst cases, where medicine can not be swallowed, this and the spray must be entirely relied upon; and the dark sordes which collect upon the teeth and lips should be frequently laved with a solution of the liquor potass. permanganatis of the strength of about one drachm to six ounces of water, some of which should be swallowed if possible.

"In cases presenting a diphtheritic character, the tincture of perchloride of iron should be administered in rather large doses in a separate mixture with chlorate of potash, and equal parts of the same with glycerine should be applied locally, with a camel's-hair brush, several times in the day; but, as in the majority of cases among children it is next to impossible to use a local application more than once, the spray and permanganate solution will then prove of great service.

"As to other remedies recommended by various authors, ammonia is nasty, and can not be taken well by children; carbolic acid has the same fault, and can not be applied properly. Gargles are also useless in children, because they seldom reach the diseased surfaces, and warm baths and wet-sheet packing are dangerous, because they are never carried out properly in private practice. The hypodermic injection of pilocarpine is a remedy that may give good results hereafter, but I have had no experience of its use."

THE MIDLAND MEDICAL MISCELLANY.—The first number of a new medical journal, entitled the "Midland Medical Miscellany and Provincial Medical Journal," has reached us. It is published monthly at Leicester, England. The journal presents a handsome appearance, and its contents are such as can not fail to prove of interest and value to its readers. Its supplementary title is suggestive of the early history of the British Medical Association.

THE LATE GOVERNOR MORGAN'S BEQUESTS.—The will of the late Ex-Governor Edwin D. Morgan has just been filed in the Surrogate's Office in this city, and some of the provisions will be of interest to the profession. The income of one half of the residuary estate, which it is thought will amount to some millions, is given to his grandson, Edwin D. Morgan, Jr., during his life. If this grandson leaves one child, he will then receive one quarter of the said half estate; if he leaves two children, each is to receive one quarter; if he leaves three children, then the whole of the half-estate is to be divided between them. If the grandson shall leave no children, the half of the residuary estate is to be divided into 415 shares, and of such shares a number of medical institutions are to receive the following shares: The New York Society for the Relief of the Ruptured and Crippled, 10 shares; Woman's Hospital of the State of New York, 10 shares; Manhattan Eye and Ear Hospital, 10 shares; Presbyterian Hospital, 20 shares; Protestant Half-Orphan Asylum, 5 shares; New York Juvenile Asylum, 10 shares. The contingency in which these institutions will profit by the bequests is a rather remote one, and many years will probably go by before it will be known how the estate is to be divided.

SMALL-POX HOSPITALS AS NUISANCES.—A recent case in an English court involved the attempt of a property owner to obtain an injunction against the use of neighboring premises as a small-pox hospital. The suit was dismissed on technical grounds, but the judge intimated very strongly that he would have granted the injunction had only the merits of the application come before him.

DR. E. P. FOWLER ON HOMŒOPATHY.—Dr. E. P. Fowler, President of the New York Medico-Chirurgical Society, has favored us with a copy of his annual address before the society. It is a remarkable address—logical and cleverly put together, and the most convincing arraignment of homœopathy that we have ever read, although written by a reputed homœopathist and delivered before a society supposed to be made up of homœopathists. Among other things, Dr. Fowler says:

"It seems hardly possible that any one, previously unbiased, can make a thorough analysis of Hahnemann's 'Organon,' in its entirety, without a conviction that he held disease as being entirely independent

of and different from the ordinary processes characterizing vitalized matter. He apparently looked upon disease, not as a variation of a natural process; he treats of it rather as holding a relation to the human body much like that which genii were once supposed to sustain toward inanimate objects. This is an outline sketch of Hahnemann's system of homœopathy. The 'Organon' explicitly teaches that to cure one disease it is necessary to produce another. The term 'homœopathy' was constructed by Hahnemann, and it etymologically expresses his theory: he was an expert linguist, and would not have coined a term which etymologically misrepresented the idea he wished to express. One disease can be cured only through displacement by another disease: this is the substructure of homœopathy. Hahnemann proceeds to claim that homœopathy differs from all other medical systems in that they have no substantiation beyond theory, whereas homœopathy is a science established by induction—a science *a posteriori*: and upon this ground alone are we asked to accept it. (See Sections 25, 26.) Now, the only material in the 'Organon' which is put forward as inductive facts is to be found in Sections 36 to 46, inclusive. These facts number just thirty-seven—*twenty-one* to establish as an immutable law that dissimilar diseases do not cure each other, and *sixteen* to establish the law that similar diseases do cure each other. These thirty-seven citations are simply references; there is not one pretended description among them. With one exception, they are second- or third-handed, and some of them are derived from very questionable authority."

PARKE, DAVIS & Co.'s EMPTY CAPSULES.—The empty capsules made by Messrs. Parke, Davis & Co., of Detroit, are admirably adapted for the administration of nauseous medicines, and deserve to be more generally known. It is much simpler to place the requisite dose in one of these capsules than to make it into a pill, or even to give it in the form of powder. The capsules are made of a pure tasteless gelatine, which dissolves with the greatest readiness. We have given them an extensive trial, and have every reason to be pleased with them. They are made of various shapes and sizes, so that, when filled, they may be given by mouth, or may be used as medicated pessaries or suppositories.—*Brit. Med. Jour.*

WRAPPERS FOR APOTHECARIES.—An ingenious confrère, whose name we regret that we are unable to give, having mislaid his communication, has conceived the novel idea of publishing a sheet, termed "Medical Miscellany," intended for apothecaries to use as wrappers. The printed matter is designed for patients to read. It consists of short ethical injunctions, interspersed with domestic receipts and droll paragraphs on various subjects.

THE NEW YORK OPHTHALMIC AND AURAL INSTITUTE.—By the Annual Report of this institution, for the year 1882, we find that the field of its usefulness has been enlarged in each of its departments, 6,425 out-patients having been treated, against 5,584 in the year 1881; and 320 in-patients, against 273. The number of important operations performed was 554—an excess of 52 over those performed the year before.

A STATUE OF M. BOUILLAUD.—The profession in France are subscribing to a fund for the purpose of erecting a statue of the late Professor Bouillaud.

DEATH OF M. LÜER.—The famous Parisian instrument-maker, M. A. Lüer, died recently at his home in Paris.

DEATH OF M. CLOQUET.—On the 23d ult. Baron Jules Cloquet, the last of the founders and a former president of the Académie de Médecine, honorary professor on the faculty of medicine of Paris, honorary surgeon to the hospitals, and a commander of the Legion of Honor, died at the age of ninety-two.

DEATH OF M. BERTILLON.—M. Bertillon, professor of demography at the Paris École d'Anthropologie, and chief of the statistical bureau of the city, died recently, aged sixty-one years.

DEATH OF DR. C. HENRY KING.—Dr. C. Henry King, of Stapleton, Staten Island, died on Sunday, the 18th inst., at his home in Stapleton.

Dr. King was a graduate of the Long Island College Hospital, of the class of 1864, and for a number of years had been the physician-in-chief of the Seamen's Retreat Hospital.

ARMY INTELLIGENCE.—The "Army and Navy Journal" quotes the "Rio Grande Valley" for March 4th as follows: "Last Tuesday evening, at the quarters of Dr. Happersett, U. S. A., at Fort Clark, Texas, was the occasion of a testimonial to Dr. E. Melton, who was employed as an acting assistant surgeon during the late yellow-fever epidemic, and was most assiduous in his attentions to the garrison at Fort Brown during that trying period. Among those invited were many of the prominent citizens of Brownsville and Matamoras, besides all the officers of the garrison."

Official List of Changes of Stations and Duties of Officers of the Medical Department, United States Army, from March 10, 1883, to March 17, 1883.—**BROWN, HARVEY E.**, Major and Surgeon. Temporarily assigned to duty at Mount Vernon Barracks, Alabama, during the absence on leave of Captain T. A. Cunningham. Par. 2, S. O. 17, Department of the South, March 6, 1883. — **WILLIAMS, J. W.**, Major and Surgeon. Upon being relieved from duty at Fort Cœur d'Aléne, Idaho, will proceed to Fort Walla Walla, Washington Territory, and report for duty as medical officer of that post. Par. 5, S. O. 24, Department of the Columbia, March 1, 1883. — **CUNNINGHAM, T. A.**, Captain and Surgeon. Granted leave of absence for twenty days, to take effect from the 21st instant. Par. 1, S. O. 17, Department of the South, March 6, 1883. — **HEIZMANN, CHARLES L.**, Captain and Surgeon. To be relieved from duty in the Department of the South, and assigned to duty at Columbus Barracks, Ohio. Par. 8, S. O. 58, A. G. O., March 12, 1883. — **TAYLOR, B. D.**, Captain and Assistant Surgeon. To be relieved from duty at Fort Ringgold, Texas, and will, so soon as able, report to the commanding officer, Fort Clark, Texas, for duty. Par. 6, S. O. 25, Department of Texas, March 9, 1883. — **WOOD, MARSHALL**, Captain and Surgeon. Is assigned to duty at Fort Cœur d'Aléne, Idaho. Par. 5, S. O. 24, Department of the Columbia, March 1, 1883. — **BRECHEMIN, LOUIS**, First Lieutenant and Assistant Surgeon. To proceed to Fort Brady, Michigan, and report to the commanding officer for duty at that post. Par. 1, S. O. 41, Department of the South, March 14, 1883.

NAVAL INTELLIGENCE.—The "Army and Navy Journal" learns that Medical Director Thomas J. Turner is expected to go to Japan shortly, to study the sanitary system of that country, in connection with his duties as a member of the National Board of Health. — According to the same journal, Passed Assistant Surgeon James E. Gardner recently registered at the Hotel de l'Athénée, Paris. — Passed Assistant Surgeon Howard Smith has been ordered to the Nipic. — Medical Director Edward Shippen has been ordered to duty at the Naval Hospital, Philadelphia. — Passed Assistant Surgeon Richard Ashbridge has been detached from the Miantonomah, and granted leave for six months from March 9th. — Medical Director Samuel F. Coues, recently on duty at the Naval Laboratory, New York, has been placed on waiting orders. — Medical Director Richard C. Dean is to be transferred, on the 31st inst., from the Naval Hospital at Philadelphia to the Naval Hospital at Brooklyn. — Medical Inspector D. Bloodgood has been detached from the Naval Hospital at Brooklyn, and ordered to the Naval Laboratory at New York. — Passed Assistant Surgeon R. A. Urquhart has been detached from the receiving-ship Independence, and granted leave for six months. — Passed Assistant Surgeon Frank B. Stephenson has been detached from the Navy Yard at Norfolk, and ordered to the Navy Yard at New York. — Passed Assistant Surgeon Nelson McP. Ferebee has been detached from the Navy Yard at New York, and ordered to the Navy Yard at Norfolk. — Surgeon Thomas Hiland has been placed on the retired list. — Although it is stated that an error was made in diagnosing the cases of the two sailors who recently died on board the Hartford, in Callao harbor, as yellow fever, a salutary vigilance on the part of the Chilean authorities has been the result, as evinced by an energetic reorganization of their boards of health at Callao and Lima. The health of the Hartford's company is now said to be excellent.

Lectures and Addresses.

A CLINICAL LECTURE ON EPILEPSY.

DELIVERED AT THE NEW YORK POST-GRADUATE MEDICAL
SCHOOL,

By WILLIAM A. HAMMOND, M.D.,

PROFESSOR OF DISEASES OF THE MIND AND NERVOUS SYSTEM.

GENTLEMEN: This is a case of epilepsy occurring in a girl twelve years of age. The attacks date back about two years, occur about three times a month, and are of the *grand mal* variety; that is, she becomes unconscious, falls down, froths at the mouth, bites the tongue or lips sometimes, is seized with general convulsions, and after that goes into a state of stupor. There are different varieties of epilepsy, and some cases differ so widely from others that you would hardly suppose they belonged to the same form of disease. In the milder form of epilepsy there may be no perceptible spasm, although it is probable no case occurs in which there is not any spasm whatever. There may be but a simple twitching of the eyelids, a slight strabismus, or a slight movement of the fingers or of the arm. The spasm, however, is so slight in some cases that, unless it were looked for very closely, it would not be seen. In such a case the patient may be walking the street, or conversing with a friend, and suddenly lose consciousness, only for a moment, perhaps not long enough even to disturb the continuity of his ideas or to stop the conversation. With this unconsciousness, which lasts but a second, there is generally some spasm of the muscles, as of the eyeball or of the mouth, or other part, which the friend may not notice at all. Such is the simplest form of epilepsy, and it may go on for months or years without being observed by anybody but the patient himself, and *he* may not suspect that there is anything very wrong until he feels that his mind is becoming affected. He may then commit some indiscretion which will attract the attention of his friends. Again, the patient may, while sitting at the table, suddenly drop his knife and fork and stare into vacancy, and, after a moment, take up the knife and fork and continue his meal. It is difficult to say whether, in some cases, there is complete loss of consciousness or not, the attack is so short, the patient remembers what was occurring just before the attack, and recognizes what is taking place immediately afterward, and is led to believe that he was at no time entirely unconscious. In this connection I may mention what is called Jacksonian epilepsy, in which there is simply a twitching of certain muscles; it may be of the eye, causing a rolling of the ball, and in which there is no loss of consciousness. Now, I do not believe that such a case is one of epilepsy at all, but that it is simply epileptiform, for the essential phenomenon of epilepsy is absent, namely, loss of consciousness. Dr. Jackson believes that epilepsy may exist without loss of consciousness, but I differ with him regarding that point. Such a case, if not arrested, might pass into true epilepsy, but it is not such at first. This sort of epilep-

tiform disease, in which spasms take place without loss of consciousness, may frequently be produced by irritating different parts of the body. For instance, a man came to me in whom one could always excite convulsions by tickling him in the side. Another patient had an epileptic zone on the top of the head, and if that were touched it would certainly develop an epileptic convulsion; simply pointing the finger in the direction of that particular spot would sometimes bring on an epileptic attack. I proposed to cut off that portion of the scalp down to the bone, feeling confident it would effect a cure, but the patient would not submit to the operation.

Now we come to the next form of epilepsy, ordinarily known as the *grand mal*. The form of which we have just been speaking is called *petit mal*, of which, as you observed, there are two varieties. In the *grand mal* the patient becomes unconscious and falls, generally with the face forward. He may or may not have an aura. By aura we understand a sensation existing in some part of the body which apparently passes up to the brain. I say apparently, because the probabilities are that it passes downward from the brain. When the sensation apparently reaches the brain, the patient becomes unconscious. This aura is found in about one half the cases of epilepsy, and usually consists in a sensation of numbness of some part of the body, often of the right hand; for it is a singular and important fact that, when an aura occurs, it occurs in that part which is most used. If the patient is left-handed, the aura will probably exist in the left hand; but, as most persons are right-handed, the aura is most frequently found to exist in the right hand, and usually in the thumb or fore-finger of that hand, as these are most used. This sensation of numbness, or of tingling, passes up the arm, sometimes rapidly and sometimes slowly, and when it reaches the brain the patient loses consciousness. Another great center for the aura is the pit of the stomach. It may also start from the mouth, the lip, the tongue, or any other part of the body. When the patient becomes unconscious, he falls if left to himself, and, as said before, almost invariably forward. That is a point of some importance in diagnosis when the patient is picked up in the street. Such persons often have scars upon the forehead and face, etc., from injuries received in falling during an epileptic seizure. In about one third of the cases the patient, at the moment he becomes unconscious, utters a slight cry, like the bleating of a goat, and immediately falls. The face, at the instant consciousness is lost, is pale, the sterno-cleido-mastoid and the platysma-myoides muscles then contract upon the veins of the neck and impede the return of blood from the head, causing the face to become purple, sometimes almost black; the muscles of respiration are thrown into tonic contraction, and for a moment the patient ceases to breathe; sometimes the body assumes the position of opisthotonus, but not often. When death occurs during an epileptic attack, it is in the first stage, and is due simply to a want of breath; but this accident is the rarest thing in the world, since the first stage very seldom lasts as long as thirty seconds. Of course, in falling, the patient may receive an injury which

will cause death. After the first stage, which usually lasts five or ten seconds, has passed off, there is a general relaxation of the muscles, the patient takes a long inspiration, the face loses somewhat of its purple hue, but it still remains darker than normal, for the muscles are not yet completely relaxed. The limbs are now thrown into clonic convulsions. The muscles of the face twitch, the head is drawn back violently, the tongue may be thrust between the teeth and be bitten, or, if the convulsive movements occur more strongly on one side than on the other, as they usually do, the inside of one cheek may engage between the teeth and be bitten. This stage may last one, two, or three minutes. If it lasts apparently longer than three minutes, it is probable a succession of fits is taking place. It is very rare indeed that the stage of both tonic and clonic convulsions lasts longer than five minutes. During that period the urine and the feces may be passed involuntarily, but this seldom occurs in the case of grown-up patients. This stage gradually passes off, the breathing becomes regular, the face assumes its natural hue, and the patient passes into a condition of stupor, which may last from a few minutes to several hours. The duration of the period of stupor becomes shorter as the attacks occur more frequently, so that in some of the older cases the patient is able to get up and walk off immediately after the convulsion. In recent cases the mind is confused after the period of stupor has passed by, and there is usually very severe headache. Such is the regular form of the epileptic paroxysm.

There is another variety, which is still more interesting, not only in its medical relations, but also in its medico-legal relations. It is a form in which the paroxysm is aborted. In a case of this kind, which fell under my observation, the patient dropped his work suddenly, seized an ax, and rushed out into the yard and began to batter the fence down. In a few minutes the attack was over, and he knew nothing about what had occurred. Again, he may rise in the night, go into an adjoining room, seize one of his children and throw it out of the window, and, after recovering consciousness, have no recollection of what had happened; or a murder of any kind may be committed during such an attack, in which the movements, though performed voluntarily, are performed during a state of unconsciousness. One of the most remarkable cases of this variety of epilepsy occurred in a large manufacturer in this city, whom I treated some years previously for symptoms due to a syphilitic tumor at the base of the brain. He recovered entirely from these symptoms under the use of iodide of potassium and mercury. Afterward he was brought to me, with the statement that at times he did things of which he was unconscious. On one occasion he went to Easton, Pennsylvania, there got off the car and walked back to New York, where he wandered about for eleven days before he regained consciousness and returned home. During that time he was sought for by the detectives, but could not be found; his conduct was so regular that no one with whom he came in contact suspected in the least that he was unconscious of what he was doing. In another case the patient, a little girl, had fallen upon the street and sustained an injury at the outer and upper angle

of the forehead, which resulted in necrosis and destruction of the cranial bones for about six inches around. The brain was left covered simply by the scalp. Epileptic paroxysms ensued, some of the regular grand mal form, and some of the aborted kind. On one occasion, while I was lecturing upon her case at the University Medical College, she suddenly arose from her chair, walked up to the students and conversed with them about her condition for about three minutes, being unconscious of what she was doing; then, regaining consciousness, she returned to her seat.

It is well to remember that the aborted form of epilepsy may manifest itself in a great variety of ways. This will become evident to you when I state that every disease which is attended with unconsciousness and spasm is epilepsy. This is true, whatever may be the form of the attack, and whatever may be the disease which supplements it. There may be epileptic paroxysms in cases of cerebral hæmorrhage, and in a great variety of affections. The chief symptom in some cases is simply vertigo. A gentleman wrote me from Florida that on one occasion the servants found him before his mother's bedroom door with an ax in his hand, evidently intending to take her life. He was led back to his room, and, when he came to himself, he was suffering from a slight headache, and fell into a deep sleep. His was a case of the aborted form of epilepsy.

With regard to the patient before us, she looks like a bright little girl, and it would appear that the epileptic paroxysms have not yet caused any deterioration of her intellect. However, they do so eventually; but in the case of children a long time is required before it becomes manifest that the intellect is affected. Children sometimes have one or two hundred paroxysms a day, and are just as bright at the close of the day as at the beginning. In illustration of this fact, I may mention the case of a little girl who was brought to me from one of the New England States, suffering from a mild type of epilepsy. I ordered a grain of the bromide of zinc three times a day, and a diet consisting exclusively of skimmed milk, with instructions for the parents to bring the child back again at the end of a month. The child's condition began to grow worse immediately after the commencement of this treatment, but, instead of letting me know about it, the parents observed my directions literally until the end of the month, and then brought the child back again suffering from as many as three hundred epileptic paroxysms daily. The paroxysms followed one another in rapid succession. I saw at once that the restricted diet had produced anæmia of the brain, and thus had aggravated the child's condition rather than improved it. The diet was changed, she was given beefsteak and other nourishing food, and within three days the paroxysms were reduced to one in twenty-four hours.

This child has never taken any medicine. It is not often that we meet with a case of epilepsy in which the bromides have not been tried, and tried very properly, too. Of course, we can not consider the pathology of the affection on this occasion. There are a good many different kinds of treatment which have been resorted to within recent years which are of considerable importance. Whenever a patient has an aura, as this child has, you may do a

great deal of good by giving something which will prevent the development of the paroxysm. It is a remarkable fact that epileptic attacks may be kept up by the force of habit, even after the original cause has been removed. For instance, a child may swallow an apple-core, and that night have an epileptic fit. Now, although you may get rid of the apple-core by the administration of a purgative, another fit may occur within a short time merely from the force of habit, which has been so readily established. I know of no other disease which becomes habitual so readily as does epilepsy. Hence, the first thing to be done in all cases of epilepsy is to break up the habit. There are two important ways of doing this: first, when the patient feels an aura, if three or four drops of the nitrite of amyl be put upon a handkerchief and inhaled, the paroxysm will almost certainly be aborted. I have cured several cases of epilepsy by that method alone, without the administration of any internal remedy. The drug should be put to the mouth so that it may be inhaled thoroughly. When inhaled thoroughly in this way, it will produce a sensation of fullness in the head, a tingling of the surface of the body, and redness of the face. Nitro-glycerin, or glonoin, may be used for the same purpose. It takes a longer time to act, but its effect is more permanent. Nitrite of amyl will prevent a paroxysm, but it is liable to come on within an hour or a short time afterward. The strength required is one drop of glonoin to one hundred of alcohol, and it may be administered in pill form, the best preparation being that of Metcalf, of Boston. Two drops of the one-per-cent. solution may be given to an adult. It produces a feeling of fullness in the head, a slight pulsating headache, with acceleration of the pulse. The drug may also be given on a little sugar. Nitro-glycerin is one of the remedies used also for the permanent treatment of the disease. In epilepsy there is at first a general anæmia of the brain; so long as this organ is in a hyperæmic condition it is impossible for a paroxysm to occur. It is on the principle of producing a hyperæmic condition of the brain that the nitrite of amyl and nitro-glycerin abort the epileptic attack. The same result may be obtained by putting an elastic band around the neck, preventing free venous return, and causing a fullness of the cerebral blood-vessels. I know of two cases of epilepsy which were cured in that way. In another case the patient applied the band at the time she felt the aura, and it prevented the paroxysm; afterward she wore it constantly, and had had but three attacks within about four months, whereas previously she had been having as many attacks in twenty-four hours. Now, curiously enough, Dr. Corning proposes to treat epilepsy by compression of the carotid arteries, and doubtless he has obtained marked results in some cases by the use of an instrument which he has invented for this purpose. But you know that it is almost impossible to compress the carotid artery with any instrument without at the same time compressing the jugular vein, and I am of opinion that this is the true explanation of the beneficial results which he has obtained.

For a permanent cure of a case like the present one, I think it is always best to begin with the administration of the bromides in some form or other. There is no use in

trying the old remedies, such as the nitrate of silver, the sulphate of copper, the salts of zinc, etc. Some of the salts of zinc, however, are sometimes beneficial, but they are more efficacious in conjunction with the bromides than when administered alone. But, in general, to use those old remedies will be to throw precious time away, for they will not reduce the frequency of the paroxysms oftener than in one case in one or two hundred, whereas the bromides will do so almost invariably, and, if the case be not an old one, they may effect a permanent cure. I usually begin the treatment in the adult with a mixture consisting of four ounces of the bromide of sodium to a pint of water, a teaspoonful, which contains fifteen grains of the bromide, to be taken three times a day. The efficacy of the solution will be increased by adding half an ounce of the iodide of potassium. It will take several days for the drug to produce any effect, for it acts slowly. When a physician tells me he has induced sleep in a patient by a single ordinary dose of the bromide of potassium I do not believe it; it requires more than one dose of fifteen grains several times daily, given for from two to four days, to produce any decided effect. Perhaps a single dose of a hundred grains would put the patient to sleep, but it is not usually administered in such large quantities. A teaspoonful of the mixture should be given largely diluted with water, for the effect of these salts is greatly increased when they are largely diluted with water. I increase the dose one fourth every three months for a year, and continue it at that for another year. It is then reduced in the same manner, and during the fourth year the patient takes fifteen grains of the bromide three times a day. If the quantity is not increased during the first year, the attacks will probably recur, and you will then find it very difficult indeed to check them. I used to teach that it was not necessary to give the bromide longer than two years, but I found afterward that in a few cases there was a relapse, and it is safer, therefore, to continue the treatment for four years. Indeed, if I were subject to epilepsy myself I should continue to take the bromides all my life, thus avoiding any probability of a recurrence of the paroxysms. If after a time the bromide treatment does not produce as marked results as are desired, I would advise you to stop for a month, or longer, until the system has had time to become perfectly free from the drug, and then begin the treatment anew. In the mean time something should be given to quiet nervous irritability, such as cod-liver oil and tonics. The patient must remember this fact, however, that unless a certain degree of bromism is produced the disease can not be cured.

The bromide treatment is not altogether unattended by danger. I have lost three cases from it. In one case, the patient lived in North Carolina, and wrote to me, complaining of the ill effects of the drug. Patients, however, are likely to magnify their troubles, and I replied that she had better see her local physician and follow his advice. She did so, but her physician did not like to take the responsibility of stopping the treatment, and it was continued. She died shortly afterward from bromism. In another case, that of a young lady, pneumonia supervened on bromide poisoning and caused death. I have observed that bromism

predisposes to lung trouble. In a third case a young lady disobeyed my instructions and exposed herself, took pneumonia, and died. If, however, your cases are under your own immediate supervision you can watch them, and, when the effects of the drug are becoming too marked, decrease the dose, and it will not be likely to produce any serious result. It is necessary to affect the constitution pretty strongly, else a cure can not be obtained. Weakness short of ability to stand up, and an acne eruption on the face and chest, are not contra-indications to a continuance of the treatment. But I have had to stop the bromide frequently on account of indolent ulcers which it had produced. These can usually be cured easily by galvanism.

Another useful measure in the treatment of epilepsy is counter-irritation applied to the back of the neck by the platinum disc, or other instrument heated to a white heat. It is necessary only just to touch the skin, and then remove the cautery immediately. The pain produced is so slight that the patient scarcely feels it. I have known the number of paroxysms to be reduced after a single application of the cautery.

Gentlemen, I have only given you the important points in the treatment of epilepsy; it is impossible to treat the subject exhaustively in a single lecture.

Original Communications.

MEDICAL ETHICS AND ETIQUETTE.

COMMENTARIES ON THE NATIONAL CODE OF ETHICS.

By AUSTIN FLINT, M. D.

Third Article.

THE DUTIES OF PHYSICIANS TO THEIR PATIENTS AND THE OBLIGATIONS OF PATIENTS TO THEIR PHYSICIANS.

(Continued.)

SECTION 3. Frequent visits to the sick are in general requisite, since they enable the physician to arrive at a more perfect knowledge of the disease—to meet promptly every change which may occur, and also tend to preserve the confidence of the patient. But unnecessary visits are to be avoided, as they give useless anxiety to the patient, tend to diminish the authority of the physician, and render him liable to be suspected of interested motives.

It is generally left to the physician to judge of the frequency of visits which cases require. He is asked by patients, or their friends, much oftener to increase than to diminish the number of his visits. Not infrequently he is asked to make the number greater than, in his judgment, the case requires. Patients who are able and willing to incur the expense of superfluous visits are entitled to them, if professional attendance necessary in other cases be not thereby prevented. But it is fair, both to the physician and patient, to state that a certain proportion of visits made at the request of the latter are not required by the circumstances of the case. In this way useless anxiety on the part of the patient from unnecessary visits is avoided.

Physicians, naturally, are sensitive respecting an imputation of making more visits than cases require, and, for this reason, they may make fewer than are advisable. Young practitioners, who are known to be struggling for a livelihood, are especially apt to be sensitive on this point. Owing to the infrequency of visits in consequence of this sensitiveness, they may appear not to be sufficiently interested in a case, or not to attach to it sufficient importance. It is always better to make too many than too few visits. The former error is easily corrected, but the latter does not admit of correction. The instances must be extremely rare in which physicians multiply visits beyond the requirements of a case for the purpose of pecuniary gain. Instances are much more frequent in which they fail to do justice, both to their patients and themselves, in this regard.

SECTION 4. A physician should not be forward to make gloomy prognostications, because they savor of empiricism, by magnifying the importance of his services in the treatment or cure of the disease. But he should not fail, on proper occasions, to give to the friends of the patient timely notice of danger when it really occurs; and even to the patient himself, if absolutely necessary. This office, however, is so peculiarly alarming when executed by him that it ought to be declined whenever it can be assigned to any other person of sufficient judgment and delicacy. For the physician should be the minister of hope and comfort to the sick; that, by such cordials to the drooping spirit, he may smooth the bed of death, revive expiring life, and counteract the depressing influence of those maladies which often disturb the tranquillity of the most resigned in their last moments. The life of a sick person can be shortened not only by the acts, but also by the words or the manner of a physician. It is, therefore, a sacred duty to guard himself carefully in this respect, and to avoid all things which have a tendency to discourage the patient and to depress his spirits.

It is a mild expression to say that gloomy prognostications made in order to magnify the importance of medical services savor of empiricism. Whenever made with that intent, they denote nothing less than downright charlatanry. The facility with which patients are led to an exaggerated estimate of medical services, and the disposition often, of their own accord, toward such an estimate, offer, in many instances, a strong temptation. Physicians not over scrupulous as to the means of obtaining a popular reputation for professional skill are likely to yield to the temptation. A well-educated physician must know that he can rarely assume to have warded off an impending disease. The statement to a patient that he has barely escaped an attack of pneumonia, typhoid fever, apoplexy, or other diseases which might be included in this category, is either evidence of ignorance on the part of the physician who makes the statement, or it is a gross violation of medical ethics. It is a popular error that most diseases can be foreseen by skilled observers, and prevented by skillful measures. The truth is, this can properly be said of but few diseases. The public are also equally in error in regard to the management of diseases. Certain diseases are controllable by known therapeutical agencies. Many, however, in the present state of our knowledge, can not be controlled; that is, arrested and brought at once, or speedily, to a favorable termination. In a considerable proportion the tendency is to end favora-

bly, and this tendency might suffice, irrespective of any active treatment. The management of the diseases which are not controllable consists in close observation and watching for complications or untoward events, meeting indications as they arise in particular cases, palliating symptoms, relieving pain or distress, and sustaining the powers of life, thus endeavoring to promote a favorable termination, to diminish suffering, and, perhaps, shorten the duration of the disease.

It is, of course, dishonest, and, therefore, a violation of medical ethics, for a physician to claim more credit than that to which he is entitled in controlling diseases or in their management. A better understanding than now generally exists in the popular mind of the nature and scope of the offices of the physician, in these regards, will tend to place the medical profession in a better light before the public.

Forwardness in gloomy prognostications is not always evidence of a desire to magnify the importance of medical services. It may proceed from a mental tendency thereto. Some minds are so constituted that there is a constant disposition to look on the dark side and anticipate the worst. This is a misfortune in the practice of medicine, alike for the physician and his patients. The physician loses a potential factor in the management of diseases, and the patient suffers a corresponding disadvantage. Some physicians are over-sanguine in prognosis, and fail to appreciate fully the condition of patients in respect of danger. A *juste milieu* is desirable; but, if there must be error in either direction, it is far better to err by looking on the bright side.

Undue solemnity, anxiety, and apprehension in the looks, manner, or words of a medical attendant on the sick, are extremely unfortunate—they discourage patients, whereas, on the other hand, a cheerful mien, calmness of deportment, and verbal assurances, sometimes accomplish more than drugs. Patients often declare that they are conscious of deriving benefit from the visits of a physician irrespective of his prescriptions, but the manifest effect is sometimes quite the reverse. It is a duty always to encourage patients as much as the circumstances of the case will allow. The encouraging features of a malady should be dwelt upon, and not those of an opposite character. Unfavorable events which may be apprehended should not be referred to in the hearing of the patient, although it may be judicious to mention them to friends, in order that they be not taken by surprise, and attach blame to the physician for concealment.

Patients, when seriously ill, do not often ask for explicit information as to the existence or the degree of danger. If the question be asked, it must, of course, be answered. The answer, with rare exceptions, should be so worded as not to exclude hope, but without deceiving the patient by holding out false assurances of recovery. To tell a patient that within a fixed period death is certain is not only a brutal violation of propriety, but such a belief is seldom warranted by actual knowledge. The writer of these commentaries has in several instances sat by the bedside awaiting the last breath in cases which have ended in recovery.

It may be a duty for the physician, of his own accord, to intimate, or cause to be intimated, to the patient that the disease is not without danger. It seems hardly right that persons should die from disease without having had any suspicion of danger; but this not infrequently happens. There may be important matters to be attended to in preparation for death. Last wishes and words are often of great comfort to surviving relatives and friends. As stated in the code, it is more appropriate for communications having reference to danger and death to be made by some one other than the medical attendant; but often others shrink from this painful duty, and, moreover, many are not competent to perform the duty with judgment and delicacy; hence, it falls upon the physician, and, under those circumstances, he should not decline it.

SECTION 5. A physician ought not to abandon a patient because the case is deemed incurable, for his attendance may continue to be highly useful to the patient, and comforting to the relatives around him, even in the last period of a fatal malady, by alleviating pain and other symptoms, and by soothing mental anguish. To decline attendance under such circumstances would be sacrificing to fanciful delicacy and mistaken liberality that moral duty which is independent of and far superior to all pecuniary consideration.

Instances are not extremely rare in which recovery from disease takes place when there had seemed to be little or no ground for hope. This fact renders it injudicious for the physician to pronounce a positively fatal prognosis even in cases which are apparently hopeless. There is no need of saying that death is certain, inasmuch as the statement of extreme danger answers every purpose as regards duty toward the relatives or friends, and, also, the patient. The physician should avoid committing his own mind to a fatal prognosis whenever there is the slightest foundation for hope, because the effect will be relaxation of his medical efforts. The effect of an abandonment of all hope on the minds of nurses, relatives, and friends, is bad. Their co-operative efforts are thereby relaxed, and not infrequently, as a desperate alternative, the patient is given over to experimentation with some irregular methods of practice.

It is trying to a physician to continue to visit patients when he feels that the resources of medicine are powerless, and to witness the closing scenes of life. But there is room for his good offices under those circumstances, and he should not withhold them. He can often do much toward lessening pain or discomfort—mental and physical; he can contribute to euthanasia, and he can comfort those who surround the bed of death by assurances that in the "last agony," as it is miscalled, these manifestations of distress are usually unattended by conscious suffering.

SECTION 6. Consultations should be promoted in difficult or protracted cases, as they give rise to confidence, energy, and more enlarged views in practice.

Erroneous views respecting consultations prevail largely in the public mind, and, to a considerable extent, among members of the medical profession. A request for a consultation is often considered as implying lack of confidence in the attending physician. It is not an uncommon notion that the function of a consulting physician is to judge con-

cerning the practice which has been pursued, and announce his decision to the patient and friends. Some persons have the idea that the physician in consultation assumes entire control of the case, and that he is entitled to whatever credit may pertain to the management. It is not to be wondered at that, recognizing and perhaps sharing in these erroneous popular views, practitioners are anxious to dispense with consultations, if they can be avoided, and consent with reluctance when they are proposed. It is highly important that the public should have correct views of the proper objects of consultations. These objects are: co-operation in the management of cases of disease, a division of responsibility, and the satisfaction of patients and those interested, by enabling them to feel that, whatever may be the result, they have done all that lies in their power to secure the best resources of medicine. A medical consultation should not necessarily imply that the consulting physician has more knowledge and skill than the physician in attendance. The advantage is in having two or more heads instead of one head. Life and health are certainly of sufficient importance to claim the judgment of more than one person. Questions in law, or of the affairs of business, or of comparatively unimportant matters relating to rules of conduct, are often deemed of sufficient consequence to obtain collective opinions. How inconsistent, therefore, to rely upon a single mind in cases of disease which may lead, if not to death, to a permanent impairment of the mental or physical powers! Consultations, when their true objects are recognized by all parties, are of great comfort to an attending physician. Undoubtedly, a reason for their being distasteful to him often is a want of full confidence in the honor of the consulting physician. Hence, it is important that physicians comply conscientiously with the rules laid down by the code in respect of consultations. These rules will be considered under another heading.

SECTION 7. The opportunity which a physician not unfrequently enjoys of promoting and strengthening the good resolutions of his patients, suffering under the consequences of vicious conduct, ought never to be neglected. His counsels, or even remonstrances, will give satisfaction, not offense, if they be proffered with politeness, and evince a genuine love of virtue, accompanied by a sincere interest in the welfare of the person to whom they are addressed.

Members of the medical profession, as such, are not called upon to be expounders of doctrines of morals, still less partisans of any particular form of religious faith. The tendency of that knowledge of human character which is incident to the practice of their profession is to make physicians charitable, and tolerant of diversities of opinion in relation to ethics and religion. Seeing, as they can not fail to do, all that lies beneath the surface in the different stations and varied conditions of human life, they know that the worst traits of character may be found in the highest, and the best in the lowest, of the conventional grades of society. Owing to the intimate and unreserved relations of the physician to his patients, he can often do much toward carrying out the injunctions of that portion of the code which is prefixed to these remarks. It is undoubtedly true that persons will often listen more considerately to counsels

or remonstrances from a medical adviser than to those of relatives, friends, and neighbors, or even to the admonitions of the clergy. It is, perhaps, true that most persons are influenced more by considerations which have reference to life and health than to those which appeal directly to the moral nature. The evils resulting from the abuse of alcohol, the dangers connected with the habitual use of opium, chloral, and other drugs, and the consequences of licentiousness, may, in not a few instances, be pointed out more effectively by a physician who has the confidence of his patients than by any one else. It is clearly his duty not to forego any opportunity of "promoting and strengthening the good resolutions of his patients."

ART. II.—*Obligations of Patients to their Physicians.*

There are several reasons why this portion of the code calls for but little in the way of commentary. In the first place, the commentator being a member of the medical profession, it is a matter of delicacy not to dilate too largely on the obligations of patients to their physicians. In the second place, although in the preparation of these articles the hope is entertained that they will have interest for non-medical readers, there is probably little ground for the expectation that they will have an extensive popular circulation. In the third place, a large proportion of patients are fully sensible of their obligations to their physicians; and, lastly, the portion of the code which defines the obligations of patients to their physicians is so clear and comprehensive as not to offer much scope for addition or elucidation. For these reasons, instead of making each subdivision a separate heading for comments, the entire article will be first given, and, afterward, brief remarks on the topics which it embraces, following the order in which they are presented in the code.

SECTION 1. The members of the medical profession, upon whom is enjoined the performance of so many important and arduous duties toward the community, and who are required to make so many sacrifices of comfort, ease, and health for the welfare of those who avail themselves of their services, certainly have a right to expect and require that their patients should entertain a just sense of the duties which they owe to their medical attendants.

SECTION 2. The first duty of a patient is to select as his medical adviser one who has received a regular professional education. In no trade or occupation do mankind rely on the skill of an untaught artist; and in medicine, confessedly the most difficult and intricate of the sciences, the world ought not to suppose that knowledge is intuitive.

SECTION 3. Patients should prefer a physician whose habits of life are regular, and who is not devoted to company, pleasure, or to any pursuit incompatible with his professional obligations. A patient should, also, confide the care of himself and family, as much as possible, to one physician: for a medical man who has become acquainted with the peculiarities of constitution, habits, and predispositions of those he attends, is more likely to be successful in his treatment than one who does not possess that knowledge.

A patient who has thus selected his physician should always apply for advice in what may appear to him trivial cases, for the most fatal results often supervene on the slightest accidents. It is of still more importance that he should apply for assistance in

the forming stage of violent diseases; it is to a neglect of this precept that medicine owes much of the uncertainty and imperfection with which it has been reproached.

SECTION 4. Patients should faithfully and unreservedly communicate to their physician the supposed cause of their disease. This is the more important, as many diseases of a mental origin simulate those depending on external causes, and yet are only to be cured by ministering to the mind diseased. A patient should never be afraid of thus making his physician his friend and adviser; he should always bear in mind that a medical man is under the strongest obligations of secrecy. Even the female sex should never allow feelings of shame or delicacy to prevent their disclosing the seat, symptoms, and causes of complaints peculiar to them. However commendable a modest reserve may be in the common occurrences of life, its strict observance in medicine is often attended with the most serious consequences, and a patient may sink under a painful and loathsome disease which might have been readily prevented had timely intimation been given to the physician.

SECTION 5. A patient should never weary his physician with a tedious detail of events or matters not appertaining to his disease. Even as relates to his actual symptoms, he will convey much more real information by giving clear answers to interrogatories than by the most minute account of his own framing. Neither should he obtrude upon his physician the details of his business nor the history of his family concerns.

SECTION 6. The obedience of a patient to the prescriptions of his physician should be prompt and implicit. He should never permit his own crude opinions as to their fitness to influence his attention to them. A failure in one particular may render an otherwise judicious treatment dangerous, and even fatal. This remark is equally applicable to diet, drink, and exercise. As patients become convalescent, they are very apt to suppose that the rules prescribed for them may be disregarded, and the consequence, but too often, is a relapse. Patients should never allow themselves to be persuaded to take any medicine whatever that may be recommended to them by the self-constituted doctors and doctresses who are so frequently met with, and who pretend to possess infallible remedies for the cure of every disease. However simple some of their prescriptions may appear to be, it often happens that they are productive of much mischief, and in all cases they are injurious, by contravening the plan of treatment adopted by the physician.

SECTION 7. A patient should, if possible, avoid even the *friendly visits of a physician* who is not attending him; and, when he does receive them, he should never converse on the subject of his disease, as an observation may be made, without any intention of interference, which may destroy his confidence in the course he is pursuing, and induce him to neglect the directions prescribed to him. A patient should never send for a consulting physician without the express consent of his own medical attendant. It is of great importance that physicians should act in concert; for, although their modes of treatment may be attended with equal success when employed singly, yet conjointly they are very likely to be productive of disastrous results.

SECTION 8. When a patient wishes to dismiss his physician, justice and common courtesy require that he should declare his reasons for so doing.

SECTION 9. Patients should always, when practicable, send for their physician in the morning, before his usual hour of going out; for, by being early aware of the visits he has to pay during the day, the physician is able to apportion his time in such a manner as to prevent an interference of engagements. Patients should also avoid calling on their medical adviser unnecessarily during the hours devoted to meals or sleep. They should always be in readiness to receive the visits of their physician, as the

detention of a few minutes is often of serious inconvenience to him.

SECTION 10. A patient should, after his recovery, entertain a just and enduring sense of the value of the services rendered him by his physician; for these are of such a character that no mere pecuniary acknowledgment can repay or cancel them.

The demands for medical services are so irregular, occurring at all times of both day and night, that a physician in full practice can not systematize his work. He must often forego periods of study, sleep, and needed rest, meals at stated times, social enjoyments, and recreation. The demands frequently can not be deferred, and the services perhaps can not be performed by a substitute, even if one be available. These are not trifling hardships, but of greater weight are the peculiar anxieties and responsibilities pertaining to the practice of medicine. The pressure of these is felt as a heavy burden by most physicians, although it may be concealed by calmness, cheerfulness, and either brusque or jovial manners.

Notwithstanding its arduous duties and the many sacrifices which it involves, the medical profession does not lack members, and in many places it is overcrowded. There are but few communities in which patients have not a choice among a considerable number of practitioners. In selecting a medical adviser or a family physician, most patients are influenced not a little by external appearances and by feelings of friendly interest. It can not be expected that they can judge critically of professional attainments. To form any accurate judgment of skill in therapeutics is by no means always easy for the medical observer, and it is simply impossible for those who are not versed in medical knowledge to decide how much to attribute to nature and how much to art in recovery from disease. True it is that very many believe themselves fully warranted in assuming to determine in individual cases whether a practitioner deserves credit or blame; but this belief is no evidence of the correctness of the assumption. Many do not hesitate to decide as to the relative merits of what is known as the regular practice and the various systems which appeal to popular favor on the ground of having originated in advanced views of medicine. This fact is proof of credulity in matters pertaining to the practice of medicine; for surely no one can claim that the decisions often so readily formed have any logical foundation. Undoubtedly a pleasing address, together with good judgment and tact in matters not strictly connected with medical services, often goes far toward obtaining and preserving the confidence of patients. There is nothing wrong in this; but it need not be argued that to deserve confidence something more than these recommendations is requisite. It follows from what has been stated that the evidence of having received a good medical education is not to be overlooked in selecting a medical adviser. Of this evidence every one can form an opinion. Aside from official testimony, the good sense which a physician shows in matters not connected with medicine is to be taken into account, and the esteem in which he is held by his professional brethren. The importance of a discrimination among physicians according to their educational recommendations does not relate exclusively to the interests of

patients in selecting medical advisers. Such a discrimination is likely to have not an inconsiderable influence on the promotion of medical education.

Intemperance is a calamity as great in the practice of medicine as in any other calling. There are few spectacles more painful than a drunken doctor at the bedside of a patient affected with a disease involving immediate danger to life. Such a spectacle happily is rare. It can not be said that intemperance is largely prevalent in the medical profession. There is no need of impressing upon patients the fact that a physician devoted to drinking-saloons, the billiard-table, horse-racing, and other kindred pleasures so called, or to the gayeties of fashionable life, is not to be preferred to one of different habits and tastes. This is well enough understood. The acquaintances which a doctor makes in frivolous or low associations do not prefer him as their medical adviser. In like manner the public is sufficiently alive to the damaging effect on the professional character of the medical practitioner by an unduly absorbing interest in art, literature, or pursuits of any kind which, although in themselves worthy, direct the attention from the duties of his profession.

It is wise to select a medical adviser when in health. No one should be uncertain upon whom to call for professional services. The selection, if deferred in case of illness until a time when these services are needed, perhaps suddenly, can not be deliberate, and must often be determined by accident. A patient under those circumstances is liable to be placed in a situation of much embarrassment; the physician accidentally in charge may not prove acceptable, but it is painful to make a change. The responsibility in cases of disease should be concentrated upon one person. It is unwise to have several medical advisers—one for diseases of the chest, another for nervous diseases, etc. The interests of patients are best subserved by having those who are distinguished as specialists always act in concert with the one who stands in the relation of medical adviser. It is the duty of the latter to decide whether certain ailments are trivial, or whether they betoken an important malady; hence, the importance of consulting him at once, wherever there are any symptoms of disease. Patients who have a proper degree of confidence in their physicians will be unreserved in their communications, thus giving every opportunity of judging respecting the agencies which may be involved in producing or maintaining the conditions of disease. A physician never considers anything to savor of indelicacy which may have a bearing on the knowledge of the case which he is called upon to treat. On the other hand, the patience of physicians is sometimes sadly tried by needless details. After a brief account, a competent physician understands vastly better than the patient the different directions in which it is desirable to push inquiries. Lengthened descriptions of morbid sensations or feelings are not only needless and tiresome, but confusing. Above all, patients should forbear writing out a full history of their subjective symptoms.

There is a class of patients much dreaded by physicians, namely, those who insist upon being taken into a medical consultation with regard to the treatment. Such patients

desire not only to know what medicines are prescribed, but to discuss the reasons therefor; they are not content without exercising their own judgment concerning therapeutic indications and the means of fulfilling them. Still more, they sometimes undertake to dispense with or to modify the directions of the physician in his absence, according to their own ideas or modes of reasoning. It is not only very unsatisfactory to treat such patients, but they are likely to fail to receive the full benefit of judicious treatment. If a patient has full confidence in his physician, he should follow strictly, without contention or distrust, all medical directions. If a patient has not full confidence in his physician, it is best for all concerned that another be substituted.

The impropriety of professional conversations with physicians not in charge of a case should be understood by patients as well as physicians. A proper sense of propriety will deter the latter from making any inquiries as to the symptoms and treatment, or offering any observations. To act according to the advice of different physicians, the latter being in ignorance of the fact, is not only dishonorable, but prejudicial to the welfare of the patient. If the advice of more than one be desired, the proper way to obtain it is by a professional consultation, which no physician should ever decline, provided the one proposed to be called in consultation be acceptable to him. To request the services of a consulting physician without the knowledge and consent of the physician in charge is a gross discourtesy, and, if done under circumstances which imply lack of confidence, the latter is fully justified in relinquishing the case.

Patients who have lost confidence in their physicians should request discontinuance of their services. So essential is full confidence in the treatment of cases of disease that it is a false delicacy to conceal the want of it. It is best for both the patient and the physician that there be a change. The code states that common courtesy and justice require that, when a physician is dismissed, the reasons should be disclosed. But the loss of confidence is in itself a sufficient reason, no matter how unreasonable the loss may be. A high-minded physician can not wish to continue in charge if he can not have the confidence of the patient. He should take the initiative in the relinquishment of the case whenever he is satisfied that confidence is lost. The reasons for the loss of confidence in some instances may be as indefinite as in the following familiar lines:

"I do not like thee, Dr. Fell;
The reason why I can not tell;
But this I know, and that full well,
I do not like thee, Dr. Fell."

Now, under such circumstances, Dr. Fell should be satisfied with the information conveyed by these lines, and retire from the case.

The inability to systematize his work is a great drawback to the comfort of the medical practitioner. Patients can do not a little toward relief in this regard by observing the injunctions contained in the ninth section of the article of the code now commented upon. This reference suffices for that section. The tenth and last section of the article expresses a truth which, for the majority of patients, need

not have been expressed. The feelings of a patient at the time of recovery from disease, as contrasted with those at a later period, have furnished a subject for jests and humorous illustrations; but "a just and enduring sense of the value of the services rendered him by his physician" is felt by the patient as a rule, and the degree of grateful appreciation of these services by the many more than compensates for a lack of this appreciation by the few.

ON DR. SQUIBB'S RESOLUTIONS TO ABOLISH THE CODE OF ETHICS OF THE MEDICAL SOCIETY OF THE STATE OF NEW YORK.*

[By C. R. AGNEW, M. D.]

IF I understand the question before us, it is whether we shall report for or against Dr. Squibb's resolutions, a question substantially presented, also, in the resolution of Dr. Gouley, "that when the committee rises it shall report in favor of repealing the new code enacted by this society in 1882."

I rise to oppose these resolutions and all similar ones, and to urge that, when the Committee of the Whole rises to report to the society, its report shall be against the repeal of the existing code.

A year ago, after mature deliberation and a free discussion, this society, by more than a two-thirds vote, and in the exercise of its indisputable right, amended its by-laws so as to make them consistent with the laws of the State and public policy. It is true that various attempts have been made to promulgate the error that said action was hasty, imperfectly considered, and that a few "ambitious," "mercenary," and, not to say, unscrupulous members of the society, had brought it about; that "specialists" had been accomplishing their nefarious purposes through the force of ill-timed and badly directed energy. Such gratuitous allegations, however, have not stood for a moment the crucial tests of legitimate criticism or investigation, and may, therefore, be dismissed as unworthy of even this brief animadversion, much less the serious consideration of the medical profession of the country. In view of them, one has only to recall a little history, and to draw comfort from its evidences of the triumph, even though it be sometimes slow, of liberty of conscience over prejudice, misrepresentation, and intolerance. Revisers, all down the pages of history, have had to endure hardship, and the only way for those who are called upon to do the work of revising is to live above the low level of the fear of their fellow-men, and not to be confused, diverted, or intimidated, even though the torch of persecution be brandished in their faces by those who assume to be the moral lights of the world, and the appointed guardians of its best interests.

"Zeal to promote the common good, whether it be by devising anything ourselves or revising that which hath been labored by others, deserveth certainly much respect

and esteem, but yet findeth but cold entertainment in the world. It is welcomed with suspicion instead of love, and with emulation instead of thanks; and, if there be any hole left for cavil to enter (and cavil, if it do not find a hole, will make it), it is sure to be misconstrued, and in danger to become condemned. This will easily be granted by as many as know history or have any experience. For, was there ever anything projected that savored in any way of newness or renewing, but the same endured many a storm of gainsaying and opposition"?

The revisers who unanimously reported the by-law, or code of 1882, framed it to be consistent with the statutes of the State, especially the law of 1880. This society adopted the code by a very large vote, without even a verbal amendment, after hours of animated discussion. Under this code, or by-law, the medical profession of the State has prospered for a year, and might have gone on doing so for years to come, if it had not been for an agitation fomented by parties living outside of the limits of the State, largely aided, and, no doubt, on conscientious grounds, by the mover of the resolutions published and widely circulated in the "Ephemeris." The legitimate course would have been, to move either to give up the charter of the society or to amend the State statute of 1880.

It may be well for us to consider for a moment our position as a society in relation to the State.

Whence do we get the right to be here in session? Indisputably through our charter from the State. No one but a legally qualified medical man has a right to be a member of this society. It is nothing to the point to say that the diploma, or certified right to practice, comes from a medical school, and not directly from the State. In this State the law undertakes to regulate, by charter or otherwise, the powers which confer the right to practice, and the method is easy by which you may hold all who attempt to practice within the limits of the State to a strict legal accountability. It is true that this statute of 1880 regulating the practice of medicine is not all that it should be. It is not perfect, nor are the men who acquire rights under it. But it will be amended just as soon as the members of the medical profession cease to legislate for themselves in prescriptive codes, and join other public-spirited citizens in inducing legislators to protect the people, as far as practicable, against medical incompetency. Whence do we, as a society, get the right to make medical codes and other by-laws? From the State through our charter. The New York State statute of 1880 says: "Section 5. The degree of Doctor of Medicine lawfully conferred by any incorporated medical college or university in this State shall be a license to practice physic and surgery within the State after the person to whom it is granted shall have complied with section two of this act." Section two, referred to, provides for registry in the County Clerk's office before commencing to practice, etc., etc. Section four provides for the indorsing of the diplomas of persons coming to the State to practice, from without the State, by an incorporated university, medical college, or medical school, etc., etc.

The revised statutes of New York especially provide that every corporation, as such, has power "to make by-

* Remarks made before the Medical Society of the State of New York, in Committee of the Whole, at its Annual Meeting, February 7, 1883.

laws not inconsistent with any existing law for the management of its property, *the regulation of its affairs*, etc., etc." And, in accordance with this provision of the statutes, the Medical Society of the State of New York has the right to make by-laws not inconsistent with the laws of the State. Kent says: "These corporate powers of legislation must be exercised reasonably, and in sound discretion, and strictly within the limits of the charter, and in perfect subordination to the constitution and general laws of the land and the rights dependent thereon." If you look at your charter you will find that whatever quality your by-laws, or codes, may have, they must, to be legal, and to have binding force upon your members, and punitive power, be "not inconsistent with the laws of the State."

Now, Mr. President, I put it to this society, Are we prepared, even under the leadership of the eminent members—I do not call them conspirators—who have been sowing seeds of discord all through the year in the profession and in this meeting, to array ourselves against the letter of the law and the policy of the State? Or, are we prepared to adopt the resolution to rise and report to the society to repeal the new code? Report to repeal the new code if you please. There is not much in the new code that I strongly desire to see retained. I am quite ready to abolish all but one or two clauses of it. I do wish, however, especially to see the clause retained which binds us all to acknowledge the public necessity for a "legally qualified practitioner." "Members of the Medical Society of the State of New York, and of medical societies in affiliation therewith, may meet in consultation legally qualified practitioners of medicine." It is permissive, not mandatory. I wish to see the profession united to contend for that, and to secure a higher and better standard of legal qualification.

Having a safe basis, and one on which legislators and the public are willing to aid us, we may as speedily as possible raise the standard of medical education, and express, in amendments to the laws regulating the practice of medicine, a higher and higher ideal, and force schools and legislators to apply higher standards of fitness for practice. What I am opposed to here is the declared or implied purpose of the movers of both resolutions, namely: to re-enact the old code, and to throw on the profession, powerless to do the work, what belongs to medical schools and legislators.

One great defect in that old code was, that it had come, in the process of time and growth of legislation, to be inconsistent with public policy in our State and with its statutes. Would it not be grossly opposed to public policy and the letter of the law of the State to attempt, by any code or by-law of our making, to strip a fellow-citizen of a right which the State had conferred upon him—a right identical with that in the exercise of which we are authorized to be here to-night as duly qualified medical men.*

The man whom the State has enfranchised this society can not disfranchise. The medical man whom the State has pronounced to be a legally qualified practitioner, this

chartered State Society can not disfranchise, however much we may despise him or refrain from social communion or fellowship with him. We can not discipline a member of our society if his conduct is in conformity with the law of the State.

Pass Dr. Squibb's or Dr. Gouley's resolutions, attempt by your vote to re-enact the old code, and you take action which will certainly be decided to be against public policy, and your action in making the by-law proposed is inconsistent with the laws of the State. I here quote from a paper by Professor D. R. Jaques, Professor of Municipal Law, University of New York.

"What is the code of ethics? What is the power of the State Society to enact one, or to legislate on any subject? What are the relations of the County Society to the State Society?"

"The State Society and each county society are *distinct corporations*, each with power to acquire and hold property, each with an organization of its own. The State Society is composed of certain permanent members, whom it selects in a certain proportion to the other members, and of members elected periodically. The act of 1813 speaks of them as members, not *delegates*. The State Society is not so much a representative body as a distinct and corporate board of control. The suggestion that the members elected by the county societies must vote as *instructed* by them is untenable. A doubtful principle in any case, it would convert the State Society into a *federal* organization, and would, in effect, require the members to vote *by counties*. In this way rules might be adopted which were disapproved of by a large majority of the practitioners of the whole State belonging to the county societies.

"Moreover, who, it may be asked, are to instruct the *permanent members*?"

"*Instruction* makes the delegate a mere messenger, to carry the conclusions of the county to the State Society. But the members of the State Society are corporators of a distinct body, and go to its meetings to form, receive, and adopt conclusions, as the result of views gathered from all sections.

"But the statutes are conclusive on this point.

"They require that in ALL cases the rules and regulations of the county medical societies shall receive the *sanction of the State medical societies*, and the act of 1866 (Chap. 445) applies this restriction to the homœopathic county societies as well. Now, if the county societies may instruct the members they send to the State Society, a majority of the counties could always control the State Society, which would be its mere creature and mouthpiece; whereas, the act of 1813 in terms declares that the 'by-laws, rules, and regulations' of the county societies shall not be 'repugnant' to those of the State Society.

"The rules of the Code of Ethics are *by-laws*. Their force and effect are the force and effect they have as *by-laws*. The authority to adopt the old rule and the new rule of consultations must be found in the power given by statute to adopt by-laws and rules. The act of 1813 and the act of 1866 are explicit in requiring that the by-laws, rules, and regulations of the State Society shall not be 'incon-

* See case of The State and relator Gray against Medical Society of the County of Erie, 24 Barbour.

sistent' with the *laws of the State*. There may be an '*inconsistency*' which is not a direct violation of the law; but it is believed that the old rule is contrary to both the spirit and letter of the law, as it is contrary to the dictates of a broad and true humanity and the interests of medical science.

"It is not consistent with the *letter* of the statutes which prescribe the qualifications of practitioners. It says in effect that the employment of physicians whom the law has sent into the community and pronounced qualified, thereby inducing the ignorant and the unwary to intrust them with their lives, shall be punished by deprivation of all benefit from the counsels of enlightened physicians. Will the law allow patients to be *punished* for employing those the law pronounces qualified?

"But there is another consideration, equally serious:

"The rule in question is the action of an organized body of men. It is the act of combination. The men thus combining are considered by many—and consider themselves—the most competent practitioners, the *only* fully qualified practitioners of the State. By adopting this rule, they *combine* to deprive the community of the best advice to be had in cases of sickness. Such a combination is against common law and the provisions of the statute as well (Penal Code, section 168). It is a conspiracy against the public health."

What are we to do then, Mr. President? For the present, keep the code as it is. After we shall have defeated the attempts in this society to lead us to rebel against public policy and the law of the State by re-enacting the old code, it will be time enough to say what we may do to amend the existing code. We shall be ready for that question in due season. We have not lowered our flag to any "ism," nor do we propose to.

"There is probably no one thing which man, considered collectively, grants less willingly to his fellow-man than liberty. Nine tenths of all the wars which have desolated the earth, and no small part of all the ills that have afflicted humanity since the race began, have been due to a denial on the one hand, and an attempt to gain possession on the other, of those attributes of freedom which modern thought is coming to regard as among the inborn, inherent, and inalienable rights of every individual. And still the struggle goes on. Liberty of the person, liberty of belief and worship, liberty of speech and press, and liberty to have a voice in the choice of rulers and forms of government"—I would also add liberty of medical consultations—"are still privileges denied to no small part of mankind; and any extension of liberty in these respects in the future, as in the past, will probably be conditioned upon long-continued, desperate efforts, and upon the payment in blood, treasure, and suffering of large price."—D. A. WELLS.

Charles O'Connor, the great jurist, in a recent letter to your speaker, says, the "general doctrine of emancipation from every unnecessary restraint upon individual liberty in action or pursuit, which forms the basis of the argument" (referring to the speaker's "Limits of Medical Ethics") "has long had me for a disciple."

After we shall have defeated the attempts to re-enact

the old code, let us return to our counties determined to carry into effect the laws we have against illegal practitioners, and to make the laws better. How many counties represented here have done their duty in this matter? New York County has endeavored strenuously to do its duty. Twenty-seven illegal practitioners have been arraigned in New York City during the past year, and twenty-five of the number have been convicted and punished. And at this moment charges are being pressed against a medical college there, with good prospect of convicting its managers of illegal methods of granting diplomas.

But the question is pertinent, What are we doing individually for higher medical education? How many public-spirited men have we attempted to enlist in the cause of medical education in our respective counties? How much have we done to advance the interests of our medical alma mater, to give it the means to make its diplomas more valuable? How much have we done individually to change the character of proprietary medical schools, and to secure for them adequate funds and a more thorough and severe curriculum?

When we shall have begun even to consider honestly these and kindred questions, we shall soon see the standard of medical education and of the legally qualified doctor rise, and the petty questions of schools and "isms" will, like other ephemeral issues, vanish or become despicable.

As regards error in medicine, what Thomas Jefferson said in another field is undisputably true here also: "Error of opinion ceases to be dangerous when reason is left to combat it." Leave members of a liberal profession free to go as advocates of the truth wherever called, and only restrained by the rules of common decency, legality, and prudence, and error will be less arrogant and dominant, and the dupes of error less numerous, or more quickly rescued.

INTRA-UTERINE INJECTIONS IN THE TREATMENT OF PUERPERAL SEPTICÆMIA.*

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THE following case seems to me to illustrate what should be the accepted treatment of puerperal fever, or puerperal septicæmia, at the present day. The case was that of a lady in the higher walks of life whom I was called to see about a month ago, in consultation by her physician, a man of wide experience. She was a primipara, was taken in labor at four o'clock Sunday afternoon, and at nine o'clock in the evening was delivered of a female child, without any difficulty or assistance. Her physician examined the external genitalia carefully, and found no tear whatever. The nurse was instructed to syringe out the vagina carefully the next day with carbolized water, which she did. The first forty-eight hours passed by without any bad symptoms at all, but, on visiting her on Tuesday morning, the physician found a temperature of 101° F., and in the evening it had

* An abstract of remarks made before the New York Medical and Surgical Society, February 10, 1883.

risen to 102.5° . The next morning, the morning of the fourth day, the temperature was 103° , and the patient began to complain of very severe pain in the right iliac fossa. There had been no chill. At five o'clock in the afternoon the temperature was 106.5° in the mouth. The patient's appearance became wild, as of one who was about to have puerperal mania; the skin was hot, and she was crying out with pain, although she had received a good deal of morphine.

Having now been called to see the patient, I took the temperature in the mouth myself, and confirmed the record of her physician, that it was 106.5° . The pulse was 145. Making a vaginal examination, I found a bilateral laceration of the cervix uteri extending nearly up to the vaginal junction. Probably this extensive laceration partly accounted for the rapidity and the ease of the labor as occurring in a primipara. I urged that the uterus should be washed out with carbolized water at once, but her physician had never seen the method practiced, and was strongly prejudiced against it; he finally consented only because it was apparent that unless something decided was done the patient would soon die. Using the Chamberlain tube and the Davidson syringe, Dr. Jones, and afterward Dr. McCosh, continued to wash out the uterus with carbolized water every four hours during the night, and the next morning the temperature was found to have sunk from 106.5° to 101° ; the pulse had fallen from 145 to 120; the patient, who had been given opium quite freely during the night, declared that she was very much relieved. Indeed, the relief had been so extraordinary that they began to believe that the danger was not real at all; that some exceptional circumstance had occurred, and that there was no septicæmia. The uterus was now washed out at longer intervals, but at once the temperature went up to 102° , 103° , 104° , and 105° , and the patient again began to look maniacal. The uterus was now washed out every three hours, opium was freely administered, ten grains of quinine were administered every eight hours, ice-water was passed through a coil of rubber tubing placed over the abdomen; and as long as this treatment was kept up the temperature did not rise above 101° or 102° ; but so soon as they ceased to wash out the uterus the temperature at once rose to 104° , and at times to 105° . This fact was proved by repeated trials.

After this treatment had been continued for ten days, a physician remaining with the patient day and night, giving the injections every three hours, and thirty grains of quinine during the course of the day, it was believed to be time to stop it; but in less than twenty-four hours the temperature again rose to 105° . I mention the amount of quinine which was being taken particularly, so as to prove positively that there was nothing of a malarial character in the case at all. On the sixteenth day after delivery, the tenth day after the commencement of the high temperature, the intervals between the uterine injections were extended from three hours to four, then to five, six, and seven hours, and finally they were discontinued altogether, and at the same time the administration of quinine was given up and the coiled tubing was taken off. Opium was continued in

small doses for a while longer, and the patient recovered entirely.

I wish to contrast this case with another which I saw just before—that of a woman who had been recently delivered of her third child. When I was called to see the patient the temperature was 106° ; she had been taken with violent pain in one iliac fossa, and had been put five days before pretty profoundly under the influence of opium, and a blister had been applied over the whole of the abdomen. Large doses of quinine had likewise been administered. When I saw the patient the use of intra-uterine injections was begun at once, but the patient lived only twenty-four hours, and died in a state of coma.

It seems to me that the time has arrived when puerperal septicæmia should be treated upon just as simple a plan as septicæmia of any other kind is, namely, by washing with some antiseptic fluid the surface where the disease originates—some fluid which will remove the poisonous material which is being absorbed, and also, so far as possible, neutralize its poisonous qualities. In brief, I would say that puerperal septicæmia, with our present light on the subject, should be treated in the following manner: First, wash out the uterine cavity completely with some antiseptic fluid; second, quiet all pain by opium; third, get the peculiar influence of quinine upon the nervous system; and, fourth, keep the temperature, at all hazards, at or below 100° by the methods which we now possess. Three years ago, at the American Gynecological Society, which met in Baltimore, I took the ground which I take to-day regarding this subject, and only one gentleman in the entire society supported my view. Every other member who spoke referred to the dangers of introducing air into the uterine sinuses during the injection, etc. But I believe that the dangers attending the use of the injections are counterbalanced by the benefits to be derived. I do not think there is the least probability that air will be introduced if a tube of large size—as large as the finger—is used. But when a catheter is employed there is some danger of inserting it into a sinus and introducing air and fluid together directly into the vessels.

GARTNER'S CANALS.

By HENRY J. GARRIGUES, M. D.,

NEW YORK.

In this journal for March 17th I find an abstract from an article by Kocks, on "Gärtner's Canals," and extensive reference is made to a report submitted by me to the Obstetrical Society two years ago on a cyst which I supposed to be formed by one of these ducts ("N. Y. Med. Jour.," vol. xxxiv, p. 623). At that time I fell into the common error of spelling the name of the man who found these organs, Gaertner and Gärtner, and so he is called in the abstract referred to. The true spelling is, however, Gartner. The man's full name was Herman Treschow Gartner. He was born in 1785, on the island of Saint Thomas, graduated in Copenhagen in 1815, and obtained a silver medal from the Royal Danish Society of Sciences in 1822, for "An Anatomical Description of a Glandular Organ examined in the Uterus of some Species of Animals."—

In the above-mentioned report I stated that the only point in the specimen examined which did not correspond with the structure of the *vas deferens*, which in the male is homologous with Gartner's duct in the female, was the character of the epithelium, which in the cyst was flat, and is described as columnar in the *vas deferens*. I had then not noticed that K  lliker, in his "Entwickelungsgeschichte," second edition, p. 981, states that in a *female* embryo of a calf he found Wolff's duct, which is the same as Gartner's duct in the adult animal, composed of a *flat* epithelium and a thin fibrous membrane. Thus the missing link in the chain of evidence connecting the cyst in the vagina examined with Gartner's duct is found.

Finally, I would state that the two tubes now described by Kocks, and looked upon as remnant's of Gartner's ducts, were described by Dr. Skene, of Brooklyn, three years ago (see "Am. Jour. of Obst.," 1880, vol. xiii, p. 265, *et seq.*). This observer thinks, however, that the tubules terminate at their upper end in a number of divisions, which branch off into the muscular substance of the urethra. This ramification would contradict Kocks's theory that these ducts are the remnants of Gartner's canals; but since, on Dr. Skene's figure 5, these ramifications appear as very small openings in the wall of the comparatively large canal formed by the duct, it seems likely that these so-called branches are muciparous glands situated in the mucous membrane lining the ducts.

Book Notices.

Labor among Primitive Peoples: showing the Development of the Obstetric Science of To-day, from the Natural and Instinctive Customs of all Races, Civilized and Savage, Past and Present. By GEORGE J. ENGELMANN, A. M., M. D., Professor of Obstetrics in the Post-graduate School of the Missouri Medical College, etc. Fifty-six illustrations. St. Louis: J. H. Chambers & Co., 1882. Pp. xviii-203.

DR. ENGELMANN's modest little volume is evidently the result of a good deal of painstaking investigation of the customs of various races, ancient and modern, with regard to the care of parturient women. The author mentions that his interest in the matter was first excited by the study of an ancient Peruvian burial urn bearing a sculptured representation of the process of delivery. His own travels, supplemented by investigations of ancient pottery and paintings, by correspondence with those who have been so situated as to be able to furnish information as to the procedures adopted among various primitive peoples of the present time, and by examination of the works of preceding writers on the subject, have enabled him to bring together a great mass of facts, illustrated by quite a number of pictorial representations, the latter being authentic and for the most part highly graphic, their quaint simplicity and avoidance of any attempt at the artistic being the best possible proof of their fidelity to the scenes they purport to show.

As regards all the obstetric manipulations now practiced among civilized peoples, save only those involving the introduction of instruments or the hand into the uterus, they find their counterparts, more or less rational and efficient, among the various savage tribes and uncultivated communities with which the book deals, whether resorted to from mere instinct or in

conformity with some rough notion of the relations of cause and effect. Even manual expression of the placenta falls within this statement. Most space is devoted in the book to the various postures assumed during labor in the different countries referred to, and it is a matter of great interest to note the wide range covered by the postures described and figured, including almost every conceivable variety of the horizontal decubitus, reclining attitudes, squatting, sitting, kneeling, standing, hanging, etc., as well as the diverse man  uvres resorted to by the assistants.

Such an inquiry as this can not fail to prove of great value to the student of obstetrics, and we think that Dr. Engelmann is very much to be commended for having taken so much pains with it. The volume may be read with advantage by every general practitioner, since it contains much from which he will be able to draw deductions applicable in daily practice. The mechanical get-up of the book is not altogether pleasing, for reasons sufficiently set forth by the author in his practice.

BOOKS AND PAMPHLETS RECEIVED.

The Pathology and Treatment of Diseases of the Ovaries. (Being the Hastings Es-say for 1873.) By Lawson Tait, F. R. C. S., Edinburgh and England, Surgeon to the Birmingham Hospital for Women, etc. Fourth edition, rewritten and greatly enlarged. New York: William Wood & Co., 1883. Pp. 357.

Diagnosis of Ovarian Cysts by Means of the Examination of their Contents. By Henry Jacques Garrigues, A. M., M. D., Obstetric Surgeon to the Maternity Hospital, etc. New York: William Wood & Co., 1882. Pp. iv-112.

The Untoward Effects of Drugs. A Pharmacological and Clinical Manual. By Dr. L. Lewin, Docent of Materia Medica, Hygiene, and Public Health in the University of Berlin. Second edition, revised and enlarged. Translated by J. J. Mulheron, M. D., Professor of Principles of Medicine, Materia Medica, and Therapeutics in the Michigan College of Medicine. The only English translation having the author's indorsement. Detroit: George S. Davis, 1883. Pp. 216-vi. [Price, \$2.25.]

A Medical Index, being a Completely Indexed Note Book for Students, and for Physicians a General Index and Record Book for all Valuable Professional Reading and Experience. Ann Arbor: Joel A. Miner. Pp. 19-380.

A New Index Rerum for Students and Professional Men. Arranged to Minimize the Labor of Indexing, and to Classify all Indexed Subjects. Ann Arbor: Joel A. Miner.

An Index of the Practice of Medicine. By Wesley M. Carpenter, M. D., Assistant Pathologist to Bellevue Hospital, etc. New York: William Wood & Co., 1883. Pp. 304. [Interleaved.—Pocket cover.]

Circular. War Department, Surgeon-General's Office, Washington, D. C., February 20, 1883.

Cottage Hospitals. By Lucius W. Baker, M. D., Physician in charge, Children's Hospital Cottages, Baldwinville, Mass. Read before the Massachusetts Medical Society, June, 13, 1882. West Gardner, Mass., 1882. Pp. 10.

The Law of Human Increase. By Nathan Allen, M. D., LL. D. Pp. 10. [Reprint from the "Popular Science Monthly."]

The Prevention of Insanity. By Nathan Allen, M. D., of Lowell. Boston, 1883. Pp. 23.

Suggestions regarding the Local Treatment of some of the Commoner Affections of the Ear. By Samuel Theobald, M. D., of Baltimore. Pp. 6. [Reprint from the "Maryland Medical Journal."]

Jahresbericht des Verwaltungsrathes des deutschen Hospitals und Dispensary in der Stadt New York, f  r das Jahr 1882.

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RESTRAINT AND SECLUSION IN LUNATIC ASYLUMS.

THAT the harsh, flippant, and for the most part undeserved criticism that has been so freely poured upon American superintendents of lunatic asylums of late years has not driven them into a stubborn spirit of defiance, but has rather been met by them with wholesome self-criticism, is a fact that redounds very much to their credit. At the same time, there has been no servile surrender, no sop thrown to sentimentality in the shape of cant. We have been very much pleased with the tone that has pervaded the recent reports of the medical officers of such institutions, particularly those of the Bloomingdale Asylum, in this city, and two of the Illinois asylums.

Dr. Charles H. Nichols, of Bloomingdale, expresses himself as in full accord with what may properly be called the American doctrine and practice, which is, as he understands it, that neither mechanical restraint nor seclusion should ever be resorted to unless, in the opinion of a competent and responsible medical officer, protection in particular cases against violence, exhaustive activity, the removal of surgical dressings, etc., can be effected more easily, completely, and beneficially to the patient than by either the hands of attendants, medicinal agents, showers and douches (which he considers inadmissible except in a very limited number of cases), or "packs," wet or dry, which are obviously a very positive form of mechanical restraint, though their therapeutical advantages may now and then be superior to any substitute for them; but that it is the duty of the practitioner to resort to mechanical restraint or seclusion whenever he clearly sees that it is needed upon the grounds stated. Of course, he continues, the actual practice in the use of restraint varies more or less in different institutions in this, as he believes it does, actually and necessarily, in every other enlightened country, and is governed, as other measures of treatment are, by the training and character of the medical officers in charge, the opinion and support of the trustees, the number and character of the patients with respect to the extent and quality of their accommodations, the proportion of attendants to patients, the scale of expenditure, and other agencies of treatment. The restraint needed in the same institution will vary greatly according to the varying conditions of patients. While entirely unwilling to be governed by a prohibitory dogma or an arbitrary proportion to patients in the use of restraint, he is of the opinion that the circumstances that justify its average use in more than two or three per cent. of the cases under treatment must be quite exceptional. Seconded by the present assistant physicians of the institution, who have been earnest and efficient in their co-operation, the effort was made last year

to see how far restraint, either by mechanical instrumentalities or seclusion, could be reduced without violating the principles laid down, and on the men's side of the house restraint with the camisole or the bed-strap, or by seclusion, was resorted to in the course of the year in only eleven different cases (once in three cases, three times in two cases, four times in two cases, five times in two cases, six times in one case, and seven times in one case, for periods varying from one to twelve hours). On the women's side of the house more restraint was used in the early part of the year, but in the last seven months it was used in only two cases, three times in one case, and four times in the other, for periods varying from one to ten hours. In the foregoing list of restraint used is included seclusion in three different cases of paroxysmal mania in men and one of general paralysis (four times in two cases, five times in one case, and once in one case, for periods varying from two to six hours). Seclusion was not resorted to in any other case, and the habit of voluntary seclusion into which certain old patients are inclined to fall has been entirely broken up. It is distinctly stated that the reduced use of restraint has not been attended by an increased use of nervous sedatives or hypnotics, which have, in fact, been very sparingly used. On the contrary, more dependence than ever before has been placed upon the composing and indirect hypnotic effects of tonic and stimulant treatment and the use of warm medicated baths and massage at bedtime.

Dr. R. S. Dewey, of the Illinois Eastern Hospital, at Kankakee, reporting on a period of two years, ending September 30, 1882, treats of various matters connected with the management of insane patients in a most interesting and painstaking manner. At present we can refer only to his remarks on the special subject under consideration. He states that the guiding principles in the employment of mechanical restraint and seclusion at the Eastern Hospital have been: First, that they were to be employed only directly and personally by the physician, he being present and judging for himself, in each instance, of the necessity, *before* the measure was taken; second, that skill was to be substituted, so far as possible, for force, and all other available resources were to be exhausted before calling in the unwelcome aid of mechanical appliances. The factor exercising the most influence in reducing the employment of mechanical restraint has been the keeping of all the means of restraint—the muffs, camisoles, etc.—under the physician's control in the dispensary, sending them to the wards only by specific direction of the physician, and for a certain definite time, after which they were to be returned from the ward. The amount of restraint has constantly diminished under the methods employed. The instances in which it has been used on each side, respectively, in the year ending September 30, 1882, have been ten times in all on the female side, and six in all in the male division.

Figures are given which show a steady decrease of restraint for the whole three years in which the hospital has been in operation; with advantage, Dr. Dewey thinks, to the patients themselves and to the general spirit and disposition of the attendants, who learn to depend more upon skill, watchfulness, and tact, in their intercourse with patients, and upon gaining

and keeping their good-will and confidence, than upon any external or mechanical appliances.

In the first year, in the male division, seclusion was employed in one hundred and twenty-one instances, and in the second year in seventy-six instances. The figures upon the female side for the two years were, respectively, one hundred and sixty-seven and three hundred, the seclusion during the second year being for proportionally much shorter periods than during the first year. Thirty-six male and thirty-nine female patients were the subjects of seclusion. On the female side, it was found that several patients were benefited, or a paroxysm of high maniacal excitement was avoided, by an occasional brief seclusion of an hour, or even less. The average duration of seclusion, in each instance, for the two years, was six hours and a half on the male side, and five hours and a third in the female division.

Mention is made of the use of the "crib," or covered bed, and "mittens," which are not included in the preceding remarks. On the male side of the house, during the two years, an average of 1.38 persons have occupied such a bed (nine hundred and twenty-eight nights and eighty-four days, with an average of 179.67 male patients). This use of the crib was by fifteen or twenty individuals, mostly paralytic or epileptic patients, inclined to fall out of an ordinary bed, or feeble subjects of melancholia, who would rest when kept in bed by this means and not otherwise, and who made scarcely any resistance to occupying the crib. The cribs are large and roomy. A patient can sit up in all of them nearly erect when the cover is down. They are not made specially strong, and are not intended or used for cases accompanied with acute maniacal disturbance. On the female side, the crib was used two hundred and eighty-three nights and eight days in the two years, with an average of 96.2 patients, and part of this was for surgical reasons. It is Dr. Dewey's belief that the crib bed has a certain limited but very useful purpose, in the securing of rest for certain classes of the insane.

The leathern mittens, applied to the hand and secured around the wrist, to prevent destruction of clothing, are by many, he remarks, not regarded as a means of restraint, since they do not in any way impede the movements of the limbs. They were used, to quite an extent, for male patients in the earlier part of the biennial period, and no record was kept of their use; but they were not used for male patients at all during the last eighteen months. On the female side, the mittens were used thirty-one times, for a total of two hundred and eight hours.

Dr. Wardner, of the Illinois Southern Hospital, at Anna, touches upon another aspect of seclusion, that, namely, in which it is desirable, not as a therapeutic measure, but as applied to insane criminals, for the protection of the other patients. These criminal inmates are, he says, as a rule, a cunning and dangerous class. Whether their insanity is feigned for the purpose of getting themselves removed to a hospital or not, they do not lose their cunning and dangerous elements of character, and he protests against being obliged to compel the association of other patients with this class, and hopes that this matter will come

before the Legislature in a way to command attention and action.

THERAPEUTIC NOVELTIES.

Our readers must have observed the decided reaction that has been going on during the last ten years from what may be called the dark ages of therapeutics—that period of skepticism, or "therapeutic nihilism," as it has been termed, which succeeded the long and dreary reign of the lancet, the purge, and the sialagogue, in which, having laid aside the commanding air of their predecessors, our craft stared at disease in a dazed sort of way, and virtually cried *non possumus* at every turn. This Fabian attitude, it is true, was but the calm that was not to be avoided during the gathering of the forces that were to be led anew to the battle with disease, under the guidance of new leaders. For the time being there was necessarily a standstill that marked the transition from the dominance of tradition to the more enlightened but less assuming sway of observation and induction. The ground had to be cleared of the imposing ruins that had been accumulating for centuries. Reverence for authority having at last come to be recognized as the worm at the heart of medicine, the lesson had to be ground into men's minds that a state of doubting was the only safe starting-point in the quest for a stock of facts on which to found a rational doctrine and practice.

This doubting state of mind was perhaps no more decided in its attitude toward therapeutics than toward pathology, but it was more striking in that aspect, and its longer continuance in that direction was happily regarded as most salutary and most to be maintained. There came a time, however, when observation and experiment would have ended in stagnation, had not some activity arisen in synthetical formulation. Detached data had been lying barren long enough; it was time to "put two and two together." Hence the *renaissance* of medication witnessed during the last few years. Beginning with the topical application of remedies, in which sphere an astonishing range was rapidly disclosed, it soon advanced to systemic drugging. It was straightway ascertained that certain potent drugs could be pushed to more decided action upon the system than had before been thought warrantable; and, on the other hand, it was proved that several agents were capable of acting quite as efficiently in doses that had up to that time been denied any effect whatever, and, of course, without the inconveniences, not to say dangers, that had formerly attended their use.

The next step in the march of therapeutics was the investigation and adoption of many new drugs that proved to be endowed with powers that had never been dreamed of—powers, too, that no agents previously in use possessed. In chloral a true hypnotic was found; in jaborandi we were furnished with a diaphoretic that, so to speak, snapped its fingers at such adjuvant measures as warm drinks and the like; in apomorphine we beheld an emetic that needed not the voluntary swallowing of a bulky dose. New properties were discovered to reside in old drugs, to be sure, and their range of usefulness was surprisingly extended; but it can not be questioned, nor is it to

be wondered at, that the fact that unheard-of effects were found to follow the use of substances which before had been either unknown or untried made a profound impression upon the minds of therapeutists.

The natural result of all this has been to stimulate a search after still other new therapeutic actions, and consequently after novel additions to the *materia medica*. It may well be asked if this rage for novelties is not in danger of being carried too far. It has given rise to a special literature; indeed, there are publications wholly devoted to new remedies, and their pages fairly bristle with an endless array of substances drawn from all three of the great natural kingdoms. We do not deprecate this bare fact, but we do feel called upon to suggest that the ardor of our search in this direction should not be allowed to lead us into giving credence to every apparent instance of a definite therapeutic effect from substances heretofore untried or considered as destitute of any such action. We insist only upon systematic, cool, and deliberate observation, backed up, if need be, by some remnant of the incredulity of a past generation. Certainly, as a matter of practice, it is not wise to be led hastily into novel methods of medication on the strength of the questionable data that largely enter into the constitution of the literature of new remedial agents. So acute a man as the late Dr. Peaslee was in the habit of advising his young friends in the profession to beware of new drugs; and sounder advice, it seems to us, was never given. Most of all should the practitioner avoid the rage for trying new remedies in all conceivable sorts of cases, without any rational guidance, but in a random, and, we must say, perilous way.

THE POLYCLINICS.

It may be said that the promoters of the New York Polyclinic builded better than they knew when they resorted to the word *πολὺς*, instead of *πῶλις*, in constructing the title of the institution, for a number of such clinics seem to be springing up among us. Already the Philadelphia Polyclinic and College for Graduates in Medicine has been organized, and its first session, as announced in the advertisement in our last issue, is to open in little more than a fortnight; and we understand that a number of our German *confrères* here in New York are moving in the same direction.

The Philadelphia Polyclinic certainly seems to have been undertaken under most promising auspices, if we may judge from the list of its professors. Dr. Richard J. Levis is to teach operative and clinical surgery, Dr. Thomas G. Morton general and orthopædic surgery, Dr. J. Solis Cohen diseases of the throat and nose, Dr. James C. Wilson diseases of the chest, Dr. John B. Roberts applied anatomy and practical surgery, Dr. Charles H. Burnett diseases of the ear, Dr. Charles K. Mills diseases of the mind and nervous system, Dr. Henry Leffmann "clinical" chemistry and hygiene, Dr. Arthur Van Harlingen diseases of the skin, Dr. Edward L. Duer diseases of women and children, Dr. George C. Harlan diseases of the eye, Dr. J. Henry C. Simes genito-urinary and venereal diseases, and Dr. Frederick P. Henry pathology and microscopy. It will be seen that this is a very

strong array of names, and we doubt not that, under the direction of the gentlemen we have mentioned, the courses of practical instruction given in Philadelphia will be such as to reflect credit upon the profession in that city, and such as to deserve and secure the material success that all who have the improvement of medical education at heart must join in wishing in behalf of those who have engaged in the undertaking.

Concerning the enterprise that our German friends have taken in hand we have less definite information, as no public announcement has yet been made of it, so far as we are aware; but, from what we know of some of the gentlemen who are said to be connected with it, we judge that there is abundant promise in their scheme. The well-known energy of our German physicians and their systematic turn of mind are an earnest that in this matter, as in most others in which they engage, they will prove themselves competent. There is a great number of German practitioners in this city, and elsewhere throughout the country, who deal almost exclusively with their compatriots, and are, therefore, so situated as to be able to follow the teachings of their countrymen to better advantage than those of men talking in a tongue still more or less strange to them, and also to seek naturally for details of practice which, being peculiar to their race, are likely to be more acceptable to their patients than others that, although equally to be commended from an abstract point of view, may not so readily suit the Teutonic mind. In view of all these considerations, it seems to us a foregone conclusion that the German institution for the instruction of graduates will meet with abundant patronage.

Scarcely less than the success of their own school must the extent to which their example is being followed contribute to the gratification of the gentlemen who organized the New York Polyclinic. They may justly feel proud, not only of the creditable career of their own institution, but also of the emulation that they seem to have excited, for it is quite certain that, had their task been performed in a negligent, or perfunctory, or in any way inadequate manner, the word polyclinic would have been heard of no more among us. As it is, they will have a constant stimulus to renewed exertion, and we doubt not that they will prove themselves equal to the demand.

FATTY HYPERTROPHIC CIRRHOSIS.

INSTANCES are multiplying in which pathological investigation has outstripped clinical observation, discrediting Velpeau's dictum: "*On ne part pas de l'anatomie pathologique, on y arrive.*" Perhaps the most recent exemplification of this statement is to be found in a peculiar affection of the liver to which M. Sabourin has given the name of fatty hypertrophic cirrhosis (*cirrhose hypertrophique grasseuse*), of which we find an excellent account in an editorial article in a recent number of the "*Progrès médical.*"

It seems that it was M. Cornil whose attention was first drawn to this singular alteration of the liver, and, since that, the affection has been studied by M. Hanot, M. Lancereaux, M. Dupont, M. Rendu, M. Stiépovich, M. Hutinel, M. Sabourin, and M. Merklen. Dupont, working under inspiration from Lancereaux, first threw light on the clinical history of the disease, which he termed acute diffuse interstitial hepatitis. Rendu re-

ported two cases, under the title of subacute alcoholism with accidents resembling those of icterus gravis.

Examined post mortem, the liver is found to be enlarged and of a remarkable cubical shape. It is of a pasty consistence, and shows the yellow color characteristic of fatty degeneration. Glisson's capsule is smooth, although sometimes thickened by perihepatic bands. On cutting into the organ, its texture shows a striking resemblance to that of the subcutaneous panniculus adiposus. As in alcoholic venous cirrhosis, the cirrhotic process begins about the blood-vessels, and invades the biliary ducts only secondarily. The affection of the liver is almost always accompanied by sclerosis of the kidneys, and it is usually found in tuberculous subjects.

As regards symptoms, the disease is commonly latent at first, no decided manifestations being present to point to liver trouble. Months, and perhaps years, are passed with attacks of abdominal pain, a sense of weight in the epigastrium or the hypochondrium, nausea, occasional vomiting, frequent vertigo, sometimes nocturnal delirium or true hallucinations; but finally a hyperæsthesia of the limbs is manifested which continues to the end. The second stage, when a diagnosis becomes practicable, is febrile, with œdema of the limbs or the face, extreme oppression, or profuse sweats. Sometimes a subacute peritonitis suddenly makes its appearance. Sooner or later, with scarcely an exception, there is at least some degree of jaundice, with a tendency to hæmorrhages; but the affection runs a longer course than that of typhoid icterus, with alternating improvement and aggravation. The disease attacks only corpulent persons, and they do not lose their *embonpoint*. Toward the close, signs of pulmonary tuberculosis declare themselves, and the liver is found to be enlarged. This second stage generally lasts four or five weeks, but in some instances there seems to be an interruption of the process, although the symptoms invariably return within a few weeks, and end in death.

Proceedings of Societies.

COLLEGE OF PHYSICIANS OF PHILADELPHIA.

Meeting of February 7, 1883.

ARSENICAL PARALYSIS.—DR. CHARLES K. MILLS read the following paper:

On November 2, 1882, at Norristown, Pennsylvania, occurred a series of cases of arsenical poisoning almost without parallel. The poisoning was brought about chiefly through eating pumpkin-pie, which it was subsequently proved contained a large amount of arsenious acid. The story of the tragedy does not come within my province in the present paper.

On the 24th of December, 1882, I saw one of these cases at Norristown with Dr. E. M. Corson, the physician in attendance. On the 3d of January, 1883, the patient was brought to the Philadelphia Orthopædic Hospital and Infirmary for Nervous Diseases, to be under the care of Dr. S. Weir Mitchell. I am indebted to Dr. Mitchell for great courtesy in affording me the opportunity of thoroughly studying the case at the hospital, and now of presenting it to the college.

Dr. G. B. Massey, Electro-Therapeutist and Assistant Physician to the hospital, carefully studied with me the electrical reactions. The results of our examinations will be given at the proper place. Dr. Browning, resident physician, also rendered assistance in investigating and recording the case.

H. G., aged twenty-four, single, a lawyer, prior to Thursday,

November 2, 1882, was in good health. He was taken sick immediately after rising from the dinner-table, having eaten freely of the pie which was subsequently found to contain the poison. He had an attack of vomiting which lasted a few minutes only. He had several similar spells of vomiting during the afternoon, and from Thursday night until Saturday morning the vomiting was almost continuous. It then began to subside, ceasing entirely Monday afternoon, except that at two o'clock Tuesday morning he vomited a dark grumous mass. Just before vomiting this mass he had a sensation of constriction or contraction in the muscles of the chest and throat, and the facial muscles were much contorted. He was not purged at any time; in fact, his bowels were not opened from Thursday, November 2d, until Wednesday, November 8th. During the whole time that the vomiting persisted he had but little pain, scarcely more than would be accounted for by the retching and vomiting. Prostration was very great from the first. Tuesday night, November 7th, he attempted to get out of bed, but fainted, and remained for some time in a semi-conscious state. About this period he began to have marked fever.

On Wednesday, November 8th, and, therefore, six days after taking the poison, the patient noticed for the first time a sensation of aching and numbness chiefly about the knees. The numbness continued, and, in a few days, extended toward his feet. He still, however, had fair use of his legs, although, of course, they were extremely weak. Three days after the appearance of the numbness in his lower limbs the same sensation began in the fingers of both hands, and soon extended to the wrists, beyond which it never passed.

His brain remained unaffected.

His legs below the knees were now almost completely paralyzed, and there was some loss of power below the elbows.

His face was considerably puffed and swollen.

His general condition and his special symptoms remained as just recorded, without any change worthy of note, until December 1st, four weeks after the ingestion of the arsenic, when he began to suffer great pain. The pains began in the knees, and speedily invaded the legs below the knees and the feet, progressing in the same course as the numbness had previously taken. Aching was always present, but frequently the pains were boring, tearing, or lancinating. They were accompanied by a sensation like that produced by a strong faradic current. Two days after the coming on of the pain in the legs, the fingers and hands also became the seat of aching. In one week the pains began slowly to abate; but throughout December, and, indeed, up to the present time, he has had more or less pain, varying very much in character. By the middle of December, the numbness and aching, which had previously been below the knees, had extended above them a distance of several inches. His lower extremities felt as if incased in a cylinder as high as the limits of the numbness. The symptoms in his upper extremities did not change noticeably. The loss of power in the thighs increased with the spreading upward of the sensory perversion.

I will now give the results of my examinations into the condition of the patient. He was first examined by me December 24, 1882, but the notes here given are from examinations made between January 10 and January 17, 1883, nearly two months and a half after the poisoning.

He presented no brain symptoms, and no disturbances of the special senses of sight, hearing, taste, or smell. He slept fairly well until midnight, and was then usually restless and unable to get into a comfortable position.

He was much emaciated. Wasting of the limbs was extreme. The following measurements were taken:

Circumference of right thigh.....	11 inches.
“ “ left “	10½ “
“ “ right calf.....	8½ “
“ “ left “	8½ “
“ “ right arm.....	7 “
“ “ left “	7 “
“ “ right forearm.....	6½ “
“ “ left “	6½ “

Paralysis below the elbows was marked, but not complete. The extensors and supinators were most decidedly affected. The fingers could only be flexed about one half. Movements of the thumbs and the small movements of the fingers were impaired. The loss of power was slightly greater in the right limb than in the left. The following were the registerings of the dynamometer:

Right hand.....	35
Left “	35

At both elbows were marked contractures at about right angles. The angles could be reduced to about 160°, but any attempt to carry the straightening farther caused pain in the flexor tendons.

Both legs were completely paralyzed below the knees. All movements of the toes and feet were abolished absolutely.

The legs in their entirety showed a tendency to rotate outward, the feet, however, assuming the equino-varus position. Contractures were not present at the knees, but at times the limbs would assume a semiflexed position, these acts of flexure being accompanied by cramp pains in the flexor muscles of the thighs. He had these jerkings not infrequently both in the legs and in the arms.

The bowels were very torpid, requiring cathartics. Some dribbling of the urine occurred for a few days in the early part of January, and then passed away. For a few days, also, he had some pain, which he referred to the lower part of the urethra, just as the discharge of urine was completed. At the time of examination, January 17th, the urine was passed slowly, but without pain.

The urine showed an excess of phosphates; but neither albumin nor sugar was present.

Farado-contractility was abolished in all muscles below both knees. Above the knees, the extensor and flexor groups and the sartorius were examined, and the faradaic reaction was found to be greatly diminished, but not wholly absent. The response was better to nerve than to direct muscular applications.

The muscles below the knees would not respond to weak galvanic currents. To currents of medium strength they responded, but not normally.

The reactions were those of degeneration. Anodal closing gave the strongest reaction; cathodal closure came next. Slight contractions followed both anodal and cathodal opening. The contractions were at first sluggish, though vigorous, increasing after a few trials, and then quickly exhausting. The reactions, expressed in the German formula, were:

AnSZ'; KaSZ; AnOZ; KaOz.

In both upper extremities farado-contractility was decreased, but not lost; the diminution was much greater below than above the elbows. Below the elbows the faradaic excitability was rapidly exhausted.

To the galvanic current the reactions of degeneration were present, but not so decidedly as in the legs. Anodal closing gave stronger reaction than cathodal. With moderately strong currents, tetany was produced at the anode.

Both patellar reflexes were abolished.

The cremaster-reflex was studied, and presented some inter-

esting points. The retraction of the testicle, known as the cremaster-reflex, which has been thoroughly discussed by Dr. S. Weir Mitchell ("Journal of Nervous and Mental Disease," October, 1879), can usually be awakened by irritation of a certain definite region of the thigh extending from the groin nearly to the knee. In young lads, as Dr. Mitchell has shown, this reflex is easily caused by touching or pinching the whole thigh, with the exception of a band of skin which nearly always may be represented as forming the postero-lateral third of the circumference of the thigh. Sometimes, however, the cremaster-reflex region is far less, and sometimes far more extensive. It rarely extends below the knees, although, as stated by Dr. Mitchell, it may in the healthy boy include a large part of the calf of the leg. In adults the excitator region is often much restricted, and it may even be absent.

Gentle irritation of the skin of the inner aspect of the right thigh and leg of the patient, as far down as the malleolus, caused very vigorous retraction of the right testicle. Sometimes, but not usually, both testicles were retracted. Similar irritation of the left thigh and leg led to movement of the left testicle, which was marked, but not so vigorous as that exhibited by the right from irritation of the right limb. Now and then, in making this test, the unilateral movement of the left testicle, from irritation of the left thigh and leg, was followed a moment later by an imperfect retraction of the testicle of the opposite side. A similar effect was not produced in any of my examinations by irritation applied to the right limb; neither did excitation of one side cause motion in the other side only.

Dr. Mitchell says: "As a rule, which has infrequent exceptions, irritation of one side produces unilateral movement of the testicle of the same side. There are two forms of violation of this law. In the first, irritation of one thigh causes motion of the testicle of the same side, and also, a moment later, less complete action of the testicle of the opposite side. In the other case, touching or pinching certain parts of the inner and usually of the lower half of the thigh causes reflex cremaster motion on the other side only; while like irritation in other parts higher up gives rise only to unilateral activity on the same side."

On admission, the surface temperature of each calf was 95° Fahr. He usually complained of his legs feeling to him unduly warm.

Late in November, transverse white bands were observed across the finger-nails, about two lines from their posterior limits. The nails were not furrowed, but simply showed white markings. As the nails have slowly grown, these lines have remained.

The fingers and forearms were hyperæsthetic, but at the same time the patient could not determine with any accuracy as to one or two points, on testing him with the æsthesiometer. A similar condition, but more marked, was present in the feet, legs, and as high as the middle of the thighs. The muscles were very sensitive.

Applications of hot and cold water were discriminated readily.

On admission to the hospital, the following treatment was instituted by Dr. Mitchell: Applications of ice and hot water alternately were made three times daily for ten minutes at a time to his arms and legs from the elbows and knees downward. Surface massage with cocoa-nut oil was used once daily. Ice-bags were applied to the spine for one to two hours twice daily. One grain of the extract of ergot of the new United States Pharmacopœia was given every two hours, and this was rapidly increased until thirty grains daily were administered. After continuing the use of the ergot for a week, the patient's stomach became disordered, and tincture of belladonna, in doses of five drops every three hours, was substituted. Fifteen grains

of chloral were administered occasionally, and sulphate of morphia, at first one twenty-fifth of a grain, and eventually increased to one sixteenth of a grain, was ordered, to relieve pain when necessary.

He was placed on the ordinary full diet of the hospital, with the addition of milk three times daily and beef-tea twice daily.

I will give the record of pulse, respiration, and temperature, for two weeks from January 9th to 23d:

	PULSE.		RESPIRATION.		TEMPERATURE.	
	Morn.	Eve.	Morn.	Eve.	Morn.	Eve.
Jan. 9	...	107	...	26	...	99° F.
" 10	134	140	24	24	98.4° F.	99.2
" 11	134	132	24	24	98.6	98.6
" 12	136	132	24	24	98.8	99.1
" 13	140	128	28	24	98.6	98.8
" 14	140	138	24	28	99.8	98.8
" 15	...	140	...	24	...	98.4
" 16	136	128	24	24	99	98.8
" 17	148	128	24	28	98.8	99.6
" 18	136	124	24	24	99	99.8
" 19	132	116	24	20	98.4	98.6
" 20	124	116	24	24	98.6	98.6
" 21	130	116	24	24	97.8	98.6
" 22	128	120	24	24	98	98.8
" 23	124	136	24	25	99	99.4

The pulse, therefore, during the time of these observations ranged between 107 and 148, and was nearly always more rapid in the morning than in the evening.

The respirations ranged between 20 and 24, standing usually at about 24.

The temperature ranged between 97.8° and 99.8° Fahr., but commonly was not much either way from the normal.

I made an examination of the patient to note the effects of treatment to-day (February 7th). He has improved steadily day by day. His general strength has increased. He has regained almost entirely the use of the muscles above the knees. He has also much better use of his forearms and hands, particularly the latter, being now able to pick up small objects. The "wrist-drop" has improved greatly. He has much less pain, aching, and numbness below the knees; the legs below the knees, however, still remain paralyzed, but are not so completely helpless. He has every appearance of progressing steadily to recovery.

Having presented this case as fully as possible, I will give in a few words all the information I have been able to obtain as to paralysis and other nervous symptoms shown by the other victims of the poisoning:

Six others altogether, besides our patient, were poisoned. One of these was a little boy, four years old, I. S., to whom a piece of the fatal pie was given, as a reward for going on an errand. He died within ten hours, and I have no knowledge of observations as to paralysis or other manifestations of involvement of the nervous system. Probably his death occurred too soon to allow any such observation to be made.

M. S., a sister of the little boy, ate a very little of the pie, and suffered to some extent, but not seriously.

C. H. G., the father of the patient, died November 8th, six days after the ingestion of the arsenic. Besides severe gastro-intestinal symptoms, he suffered with pain in his head, back, and limbs, was delirious for some hours, and was almost completely paralyzed.

Mrs. G., mother of the patient, ate a little of the pie, November 2d, and had an attack of vomiting. On the 4th she ate a piece of custard, which was also found to contain arsenic, and was attacked with vomiting. A few days later, weakness of the legs, with aching and numbness, came on, and the right foot

and leg became swollen and inflamed. She gradually recovered.

Mrs. V. ate a mouthful or two of the pie and custard containing the arsenic, and suffered with vomiting, etc., for three days. She has since had paresis and paræsthesia of the legs.

Mrs. F., who ate freely of the poisoned food, suffered severely from gastro-intestinal symptoms. She is now under the professional care of Dr. H. N. Umstead, of Yerkes P. O., Montgomery County, Pa., who has courteously written to me about her condition, and the substance of whose communication I will give. Dr. Umstead states that Mrs. F. has been paralyzed from the elbows to the ends of her fingers, and from the knees to the toes. She complained of numbness and coldness in the limbs, and a feeling as if a cord was tied tightly around the waist. She had extreme pain in the paralyzed extremities. She has greatly improved, is riding out daily, can stand without aid, and can even walk a little with assistance. She still has some pain in the hands and in the soles of the feet, but they are not tender to the touch. She has some anæsthesia of the hands and feet, especially of the latter. She begins to enjoy her food, for which at first she had great loathing. Her bowels are moved once, and she urinates twice daily, but has not quite the natural sensation when the bowel or bladder is evacuated. Dr. Umstead states that Mrs. F. and Mrs. V., whom he also treated, make five cases of arsenical paralysis which have fallen under his care during his professional career.

A careful analysis of the history and symptomatology of the case detailed must compel me to conclude that in well-marked arsenical paralysis we have to deal with a diffused myelitis, decided motor, trophic and sensory bilateral phenomena being present.

With the assistance of Dr. J. H. Lloyd, one of the staff of the nervous dispensary of the University Hospital, I began the preparation of a *résumé* of the literature of arsenical paralysis, when the "Journal of Nervous and Mental Disease" for October, 1882 (edited by William J. Morton, M. D., of New York), containing an admirable article on the subject by Professor E. C. Seguin, came to hand. In this paper the literature of the subject is given with considerable fullness, and to it I would refer those interested.

Beginning with Abano, who flourished as early as the thirteenth century, the authorities quoted or referred to by Professor Seguin are Forestus, Zacchias, Hahnemann, Thilenius, Brodie, Orfila, Christison, Graves, Huss, Leroy d'Étiolles, Imbert-Gourbeyre, Smoler, Jaccoud, Seeligmüller, Popow, Rosenthal, Romberg, Erb, Hammond, and Da Costa.

I will refer here only to the observations of Christison and Popow. Christison describes two classes of cases of arsenical poisoning in which the victims die early without paralysis, and a third class of what he terms subacute cases, with moderate gastro-intestinal inflammation. "In the later stage these cases are apt to show marked nervous symptoms: coma, epileptoid attacks, mania, tetanus, hysterical seizures, partial paralysis, resembling lead paralysis in affecting the extremities; contractures may exist."

In 1881, Popow, of St. Petersburg, published an essay upon the pathological anatomy of arsenical paralysis, as produced artificially in animals. The work of Popow was carried on under the guidance of the distinguished neurologist and microscopist, Professor Mierzeyewski, and Seguin considers his essay as in many respects the most important contribution yet made to the subject. Popow concludes that arsenic, even in a few hours after its ingestion, may cause acute central myelitis or acute poliomyelitis; that in chronic cases pathological changes are found in the white as well as in the gray substance, constituting a diffused myelitis; and that the peripheral nerves remain

normal, even three months after intoxication. Seguin gives condensed accounts of a few of the cases reported in the literature of the subject, and also reports three cases of his own—all would-be suicides with Paris green. His conclusions are practically the same as those of Popow. According to Seguin, whether the myelitis is strictly arsenical—i. e., caused by the direct effect of the arsenic on the tissue of the spinal cord—or whether it is produced (as are many forms of myelitis) by the irritation of the peripheral nerves (cutaneous, intestinal, and gastric nerve-endings), is a question which can not at present be definitely solved, but which presents an interesting field for future research and speculation.

Dr. Lloyd has collected the following references to authorities and cases in addition to those cited by Seguin:

Beck ("Elements of Medical Jurisprudence," sixth edition, vol. ii, 1838) gives three classes or varieties of arsenical poisoning. In the third variety there is, first, the inflammatory action; then, when this recedes, comes the second stage, that of nervous involvement. The nervous symptoms vary "from coma to an imperfect palsy of the arms and legs, and between these extremes are observed epileptic fits or tetanus."

Taylor ("On Poisons, etc.," 1848) gives several cases where the symptoms of *narcotism* (or general paralysis of the nervous system) were marked.

A man swallowed, by accident, some arsenic early in the morning. He went to work for several hours afterward, and was then gradually observed to sink into a drowsy state, and died that night with no complaint of pain.

A child, aged two and a half years, died *narcotized* two hours after taking the poison.

Wharton and Stillé ("A Treatise on Medical Jurisprudence," second and revised edition, 1860) make mere mention of palsy as a symptom which is apt to occur late in the case.

Taylor ("A Manual of Medical Jurisprudence," seventh American edition, 1873) speaks of local paralyses, preceded by numbness or tingling in the fingers and toes, as common consequences of chronic arsenical poisoning.

According to Stillé ("Therapeutics and Materia Medica," fourth edition, vol. ii, 1874, p. 816), arsenical paralysis most frequently affects the lower limbs first, extending gradually to the arms; but it is more permanent in the legs, continuing for months or even years. It is accompanied with cramps, spasmodic movements, numbness, and formication. The cutaneous sensibility is impaired, and the patient generally complains of coldness in the parts affected.

H. C. Wood ("A Treatise on Therapeutics, etc.," second edition, 1876) speaks of paralysis which follows non-fatal cases, and affects preferably the lower extremities, commencing and remaining longest in them; does not select the exterior muscles, and is almost always accompanied by anæsthesia, or at least by numbness and formication, and by coldness of the extremities. He quotes experiments on frogs, mostly from Sklarek.

Ringer ("Hand-Book of Therapeutics," ninth edition, 1883) refers to his experiments on frogs. He found paralysis of sensation, reflex action, and voluntary motion. He believes that the paralyzing action is exerted on the cord first, then on the nerves, and last on the muscles. The difference may be noted between Ringer and Seguin, that Ringer does not refer all pathological changes to the cord. He regards the arsenic as a "protoplasmic poison," affecting all tissues. He says that frogs are sometimes only apparently paralyzed, i. e., sensation is lost, and hence there is no response to external irritants, but, if laid on their backs, they turn themselves over.

"The Index-Catalogue of the Surgeon-General's Office" gives the titles of forty-three books on the physiological and

therapeutic effects of arsenic, but nothing special on its paralyzing effects.

Gibb ("Neuralgia and Paraplegia, supposed to be due to long-continued use of arsenic, etc.," "Trans. Path. Soc. Lond.," ix, p. 442) records the case of a lady who had taken arsenic, mostly Fowler's solution, for many years for a skin affection. She had attacks of acute neuralgia in groins, shoulders, and sides. These pains were considered due to arsenic by Sir James Clark, Dr. Robert Lee, and Dr. Copland, who all saw the case. Afterward she lost all power over her lower limbs, which felt numb, although sensibility remained perfect. This retention of sensibility is at variance with other observers and experimenters. After death the abdominal and thoracic glands were found enlarged, and traces of arsenic were found in the liver and in the lumbar vertebræ, although the drug had not been taken for more than seven months before death.

Colton ("Arsenical Paralysis," "N. Y. Journ. of Med.," Sept., 1850, pp. 177, 178) mentions the case of a patient who accidentally swallowed some arsenic, and was admitted to the hospital under Dr. Colton's care. The primary effects of the poison had been successfully combated with proper remedies. Seven days afterward, when feeling quite well, he was attacked with violent cramps in the index finger of the right hand, spreading to other fingers, then to the other hand, and finally to the feet. The pain in the hands subsided as the feet became affected. The cramps lasted thirty minutes. He then fell into a sound sleep, it being night, but in the morning he found, to his surprise, that he had lost the use of the affected parts. This paralysis had continued unchanged for five months. There was also a feeling of heat and numbness in the arms from the fingers to a little below the elbows, and in the legs from the toes to a little below the knees. Lancinating pains also occurred in those parts daily from 5 P. M. to midnight. He improved slowly under the use of quinine, strychnine, and electricity.

McCready ("Death from External Application of Arsenic," "Am. Jour. Med. Sci.," July, 1851, p. 259) relates that a woman rubbed white arsenic mixed with gin on the head of her child suffering with favus. The child died in less than forty-eight hours, with its legs completely paralyzed.

MacLagan ("On the Arsenic-Eaters of Styria," "Edinb. Med. Jour.," 1864, p. 200) visited Styria in the year 1864, and had personal interviews with two "arsenikophagites," one of whom ate in his presence nearly five grains of arsenious acid, and the other nearly six grains. The urine of both of these men was carefully bottled and taken back to Great Britain, where a chemical examination revealed arsenic. The physiological effects on these toxicophagi are described as being only tonic and stimulant, especially improving the wind and increasing sexual desire. MacLagan's evidence is strong, yet perhaps not such as would be received in a court of justice, as the men were not kept continuously under observation. The point of chief interest is that he says nothing about paraplegia or any acute or chronic poisoning symptoms among these arsenic-eaters.

Dr. Lloyd has called my attention to a case, not before reported, of suicide with arsenic, which happened some years ago in Bucks County, and was under the care of the late Dr. Hendrie. Anæsthesia and paralysis were so marked that the man declared that his legs were cut off, and died in that belief.

Dr. S. WEIR MITCHELL asked if the urine had been examined with care in the early stages of the case. Of late there had been no evidence of trouble, and, if at a former period there was albumin, it was no longer present. Perhaps it was not known to all the Fellows that arsenic, in medicinal doses, was in rare cases, as Dr. Mitchell pointed out many years ago, the

cause of more or less albuminuria. As concerned diagnosis, Dr. Mitchell had always looked on these grave forms of paralysis from arsenic as due to myelitis, and saw much in this case to support and nothing to oppose this opinion. Among the symptoms on which the author of the paper had dwelt least were the frequent twitches of the limbs, especially in sleep, and the intense general tenderness of the muscles, which disappeared readily under the use of massage. The pearly tinted band on the nails, about one line wide, had not the slightest indentation, and was unlike anything in the way of an indication of arrest of nail growth which has ever come to Dr. Mitchell's attention.

Dr. ROBERTS BARTHOLOW said that these forms of arsenical poisoning, affecting the nervous system, as described in the very interesting paper by Dr. Mills, presented many remarkable features. It had long been known that there were cases in which profound depression of the nervous centers, coma, and insensibility had been caused by large doses of arsenic, without any local irritation—without gastro-intestinal inflammation. On the other hand, Virchow informed us that there were cases of acute arsenical poisoning which could not be differentiated, either in respect to the symptoms observed during life or in the morbid anatomy, from the algid stage of cholera. The author of the paper had not referred to the fatty degeneration of the intima of the vessels, or to the same change occurring in the epithelial structures of various organs, but he had given an account of the other changes, all of which showed the profound alterations to which the tissues of the body in general were subjected, and which tended to prove the correctness of Ringer's view—that arsenic was a protoplasmic poison, and as such left no part of the organism untouched. There was doubtless a community of actions among the poisonous metals, and all affected the system to a less or greater extent in the same way. The metals were so largely employed in trades and in domestic life in our day that many cases of obscure nervous diseases might have their origin in this way. In respect to the treatment pursued, he would have directed more attention to securing elimination of the poison. However, on this point it must be admitted that the time during which elimination could be effected was rather short. The chemists told us that if, in a fatal case of arsenical poisoning, the patient lived a week after the poison had been swallowed, its detection might be impossible, so rapidly was it eliminated.

In reply to Dr. Bartholow, Dr. MITCHELL said the time for attempts at elimination had passed, as two months had elapsed between the poisoning and the patient's admission to the hospital.

Dr. S. W. GROSS asked whether any observations had been made with regard to the genital functions in the case reported.

Dr. J. T. ESKRIDGE said that the lecturer had not referred to changes in the blood in acute arsenical poisoning. Brodie, quoted in Stillé's work on "Materia Medica and Therapeutics," observed a fluid condition of the blood in animals poisoned by arsenic. He called attention to the fact, because it was another proof of the profound devitalizing influences of the drug when taken in toxic doses.

Dr. MILLS, in reply to the questions which had been asked, stated that there was impairment of the genital functions, but that sexual desire and evidences of sexual power were present. So far as he knew, the urine had not been examined in the early stages of the case. Efforts were made by Dr. Corson, under whose care the patient came, to eliminate the poison by cathartics. When he saw the patient first, the time had passed to derive much benefit from this plan of treatment. Iodide of potassium was administered.

Reports on the Progress of Medicine.

QUARTERLY REPORT ON OPHTHALMOLOGY AND OTOTOLOGY.

No. XIII.

By CHARLES STEDMAN BULL, M. D.,

LECTURER ON OPHTHALMOLOGY AND OTOTOLOGY IN THE BELLEVUE HOSPITAL MEDICAL COLLEGE; SURGEON TO THE NEW YORK EYE AND EAR INFIRMARY; OPHTHALMIC SURGEON TO ST. MARY'S FREE HOSPITAL FOR CHILDREN, AND TO THE NURSERY AND CHILD'S HOSPITAL.

OPHTHALMOLOGY.

THE BLOOD CIRCULATION IN THE REGION OF THE YELLOW SPOT.—Ayres ("Arch. of Ophth.," xi, 4), in the course of numerous experiments for determining the exact anatomy of the distribution of the blood-vessels around the macula lutea and fovea centralis, has hit upon the following beautiful and easy way: He puts homatropia in the eye, and then stands with his back to a common gas flame, and so adjusts a plain gold ring close to the cornea that its convex surface will throw a blurred image of the light into the eye. The slightest movement of the ring will cause every capillary around the macula lutea to be seen with the greatest distinctness. An ordinary teaspoon, placed in the same way, will give a larger area. It makes no difference in this experiment whether the spoon or the head be moved, since in either case the shadows will fall on the retina in places where they are not accustomed to fall. Either the spoon or ring, or the head, must remain stationary while the other is moved. If we open the other eye and look toward a piece of paper, the vessels will be seen as if projected on the paper.

THE INFLUENCE OF RIGHT OBLIQUE WRITING UPON THE EYE AND THE POSITION OF THE CHILD.—Berlin (Ber. d. oph. Ges.; Beilageheft d. "Kl. Mon. f. Aug.," 1882) states that in right oblique handwriting there exists a constant relation (proportion) in the direction of the line of union of the centers of rotation of the two eyes in such a manner that the base line projected to the point of the pen cuts the line running from upward and to the left downward and to the right at a considerable angle. He then proposes to himself to find out what is the law which forces the writer with irresistible power to adopt this definite direction of the base line, and, consequently, to assume the before-mentioned position of the body. By standing behind a child while writing, he has noticed that the down strokes were always made approximately perpendicular to the base line projected to the point of the pen. He found that the angle, under which the base line projected to the point of the pen cuts the line, is equal to the angle which the perpendicular erected upon this line makes with the down stroke. The result of his measurements led Berlin to the conclusion that it is not the oblique handwriting in itself which is injurious, but only its connection or union with the straight position of the copy-book.

EYE DISEASES FROM MASTURBATION.—Cohn ("Arch. of Ophth.," xi, 4) considers that onanism, when practiced excessively, can produce persistent photopsia, conjunctival inflammation, blepharospasm, paresis of accommodation, insanity, hypochondria, writer's cramp, and tabes. In a certain number of cases he has found photopsia or subjective perceptions of light in young persons whose eyes showed a normal condition of the pupil, acuteness of sight, tension, sense of space, light and color, refractive media, optic nerve and retina. In all the cases both eyes were affected. The dazzling was only once accompanied by a feeling of pressure in the eyeballs, but the photopsic manifestations led several times to real photophobia, and were in many cases so troublesome that reading had to be interrupted after a shorter or longer period.

**THE MATURITY OF CATARACT; ARTIFICIAL RIPENING, CORE-
LYSIS, AND EXTRACTION OF THE ANTERIOR CAPSULE.**—Förster ("Arch. f. Augenheilk.," xii, 1) begins his article with the generally accepted statement that there are many cases of cataract that have been ripe for years in which the iris, nevertheless, casts a shadow upon the lens, and in which the pupil may still be more or less illuminable; while, on the other hand, there are immature cataracts in which the iris casts no shadow on the lens, and in which no illumination in the slightest degree of the pupil can be produced. He divides ripe cataracts into three classes: 1. Those in which there is no doubt of maturity, and in which the mother-of-pearl glistening, sector-like figure is absent from its surface. These cataracts are white, yellowish, or yellowish-gray. 2. Those cataracts which have a large brownish-yellow nucleus, which nearly fills the entire capsule. The pupil is often more or less illuminable, and the iris often casts a distinct shadow. 3. Certain very slowly growing cataracts, with small, bright yellow or white nucleus and half-transparent cortex. Those cataracts in which the opaque cortex shows a distinct sector-like marking, with a glistening mother-of-pearl or tendinous appearance, are to be regarded as immature, in spite of there being no shadow cast by the iris, and no possibility of illuminating the pupil. Förster has seen in some cases the ripening of an immature cataract hastened by an iridectomy. Another means to the same end which he has employed is a light rubbing or stroking pressure made upon the cornea with the knee of a strabismus hook or a pair of closed iridectomy forceps; and he has himself seen a marked change in the sector-like figures produced by this manipulation. Care should, of course, be taken not to make this pressure too hard. Where an iridectomy is to be done to break up posterior synechiæ, he advises this manipulation to be done before the operation. The energetic use of atropine is also necessary, both before and after the operation. He has never seen any injurious effects produced upon either iris or lens by this manœuvre. He recommends it, also, to prevent prolapse of the edges of the cut iris in the angles of the wound after iridectomy. He deems the removal of the anterior capsule with the cataract very necessary, as tags of this torn capsule are so often the cause of serious trouble after operation, by healing in the wound. By removing the anterior capsule, we likewise prevent any considerable amount of cortical substance remaining behind in the capsule. Its removal is best secured by introducing a pair of fine, straight toothed-forceps into the wound and seizing the capsule, in whole or in part, after the extrusion of the lens.

LYMPHADENITIS CONJUNCTIVÆ.—Goldzieher ("Centralbl. f. prakt. Augenheilk.," Nov., 1882) describes a very interesting case of lymphadenitis of the conjunctiva in a boy fourteen years of age. The disease had existed for ten days, and showed a lymphatic gland, as large as a pigeon's egg, near the right ear, a mass of enlarged glands beneath the angle of the lower jaw, and another in the neck. The lower lid of the right eye was slightly swollen, and projected away from the eyeball; the ocular conjunctiva was oedematous and slightly injected. On everting the lower lid, there was seen in the outer half of the fornix a small tumor, as large as a hazel-nut, situated in the conjunctival tissue, but not adherent to the sclera. The surface of the tumor was uneven and yellowish, and as dense and hard as a chancre of the conjunctiva. There was no ulceration, nor any trace of trachomatous infiltration or papillary proliferation. The case was, therefore, a circumscribed tumor-like lesion of the conjunctival fornix, tending to caseous infiltration, which doubtless appeared in connection with marked infiltration of the lymphatic glands connected anatomically with the diseased region, and occurring in a person of scrofulous constitution. Goldzieher was at first inclined to regard the case as one of

primary tubercular nodular deposit in the conjunctiva, though differing decidedly from the cases of conjunctival tuberculosis hitherto described. He removed the tumor with the scissors without any difficulty, and the wound readily healed. A microscopic examination, however, caused him to change his opinion as to the nature of the disease, and he declares it to be a case of acute lymphadenitis of the conjunctiva, a real inflammatory hyperplasia of glandular tissue.

REMARKS ON 177 OPERATIONS FOR ENTROPIUM AND TRICHIASIS.—Hotz ("Arch. of Ophth.," xi, 4) in this paper again advocates the advantages of the operation devised by himself and previously described. The essential features of the operation are as follows: The skin of the eyelid is incised transversely in the line of the upper border of the tarsus of the upper lid (or along the lower border of the tarsus of the lower lid); the muscular layer covering that border of the tarsus is excised (about 3 to 4 mm. in width); and the cutaneous edges of the incision are brought in close adaptation with the tarsus by sutures which are passed directly through the border of the tarsus and the tarso-orbital fascia. The incision should follow as closely as possible that furrow which is the border-line between the skin of the eyelid and the supra-tarsal integument. In the upper lid this furrow describes a curve beginning two millimetres above the inner canthus, and ending two millimetres above the outer canthus, but its center is from six to eight millimetres removed from the cilia. Only when the tarsal skin becomes firmly united with the border of the tarsus is the permanent success of the operation insured. Hotz claims for the operation the following advantages: 1. It accomplishes its purpose without the slightest destruction of skin. 2. For this reason it can be employed in cases where other methods are impracticable on account of excessive shortness of the skin of the lid. 3. It does not mutilate the lid nor in any way interfere with its movements. 4. In a case of relapse it can be repeated without in the least disturbing the natural appearance of the lid. 5. The tension by which the inverted lashes are turned back to their normal position is rendered independent of the movements of the lid, because the distance between the two points, upon which the tension is to exert its influence, remains the same whether the lid is raised or dropped.

THE ORIGIN OF DETACHMENT OF THE RETINA.—Leber (Ber. d. ophth. Ges.; Beilageheft. d. "Kl. Mon. f. Aug.," 1882) considers that the spontaneous perforations in detachment of the retina in man, which are sometimes observed, are necessarily and closely connected with the mechanism of origin of the detachment. This might be regarded as a settled fact if it could be proved that in all cases of sudden detachment a perforation of the retina exists from the beginning, immediately after the occurrence of the detachment. During the last two years he has carefully searched for the presence of such a retinal perforation in every case of detachment which came under his observation; and he has found it so frequently in all cases, recent and old, that he is inclined to regard it as constant. He has found this perforation constantly in that portion of the retina where the detachment began. He has found that the sudden occurrence of the detachment without change in the intraocular tension is explained by the appearance of a perforation, which facilitates transudation into the vitreous chamber beneath the retina. For the maintenance of the view that the detachment and perforation as a rule result from a sudden pull or tension from within, there is still wanting an important factor, namely: the proof of a process which might exert a strain upon the inner surface of the retina, which can only be furnished by an anatomical examination. This proof he thinks he can furnish. It is well known that in old cases of detachment marked chronic inflammatory changes are found in the retina, which have hith-

erto always been regarded as secondary changes resulting from the detachment. Leber thinks it is much more likely that this process lies at the root of the matter, and only gradually advances to complete atrophic degeneration.

THE ASSOCIATION OF SOUNDS, ESPECIALLY OF WORDS, WITH COLORS.—Mayerhausen ("Kl. Mon. f. Augenheilk.," Nov., 1882) reports a sixth case of this very rare condition, occurring in an educated lady, aged twenty-five, the wife of a physician. In early childhood she connected the sounds of words with certain colors, and thus judged of the beauty of names. Words of one syllable were always perceived of a single color. If words of several syllables were rapidly spoken, they appeared of the color of the most accented syllable; but, if slowly spoken, each syllable had its own color. She convinced herself that the color depended solely on the sound of the words by the fact that in words of a foreign language the color depended upon their pronunciation, and not upon the way that they were written. It is not the person or the thing represented by the word which appeared colored, but only the *spoken* or *heard* word. She has always perceived the same color with the same word-sound; and this sensation is unavoidable; it can not be any other color than the one at first and always perceived. It is especially the sound of vowels which calls forth the sensation of color. Pronounced green she has never perceived; the word "green" sounds milky-white to her; and, although sky-blue is her favorite color, she never perceives it from the sound of any word. Mayerhausen tested her with a series of more than two hundred words from various languages, and the colors corresponding to the various sounds were given by her on the spot and without change or misplacement. The patient possessed an extremely finely developed color-sense. In this case it was firmly established that the colored sensation for vowels and their union with consonants was the primary sensation, and the transfer or assignment to actual words with meaning in the analogy of sound was secondary.

TREATMENT OF GRANULAR CONJUNCTIVITIS WITH ABRUS PRÆCATORIUS (Jequirity).—Moura Brazil ("Ann. d'Oc.," Nov.-Dec., 1882) gives an account of the new remedy, jequirity, in the treatment of acute and chronic granular conjunctivitis, and the method of preparing it for use. The seeds of the plant are boiled in water for several hours, or are left to soak in cold water for several days. When they are softened, the spermoderma is removed, and the seeds are then reduced to a fine powder, which is left to macerate for twenty-four hours in the night-dew. Then it is filtered. With this decoction the patient is to bathe his eyes three times a day. When the liquid is more concentrated it is dropped into the eye for three days in succession, and then stopped for a period. Immediately after the first application the patient begins to perceive a burning, lachrymation, heat and weight in the eyelids, and the next day the inflammation is so intense that the patient can not open his eyes. The skin of the lids becomes shining, of a violet color, the conjunctival ecchymosis is marked, there is a more or less abundant muco-purulent secretion, and intense pain. By reducing the number of seeds in the decoction, the reporter was enabled to produce a moderate inflammation, which sufficed to cure the granulations in a few days. He has also employed the greenish extractive principle of the plant in the form of an infusion of twenty centigrammes to ten grammes of distilled water, and with most excellent results. Cases of granulations, which had lasted for years, and which had resisted all known methods of treatment, have been cured by jequirity in from twenty to thirty days.

INJURIES OF THE BRAIN AND SPINAL CORD WITH CONSEQUENT OCULAR LESIONS.—Nieden ("Arch. f. Augenheilk.," xii, 1) reports a number of interesting cases of this nature in detail.

The first two cases were miners with a fracture at the base of the brain, amaurosis of the left eye, temporal hemianopsia, paralysis of the right external rectus, and diabetes insipidus. The third was also in a miner, with a perforating wound of the left temporal bone from a knife-stab, right hemiplegia without hemianæsthesia, paralysis of the left abducens and sensorial aphasia. The fourth case was also in a miner, with concussion of the spinal cord and brain. At first the symptoms were slight, but, later, progressive ataxy appeared, with exophthalmus of both eyes, atrophy of the optic nerves, and slow improvement in the general health.

TREATMENT OF GLAUCOMA.—Pflüger (Ber. d. oph. Ges.; Beilageheft d. "Kl. Mon. f. Aug.," 1882) contributes an interesting article upon the treatment of the various stages and forms of glaucoma. He takes up the old subject of the supposed effect of atropine in diminishing the intraocular tension, in order to counteract the widely extended disbelief in this theory. In all his own experiments he has found that atropine always diminishes this tension and never increases it. In experimenting, again, with eserine, he finds, as he had done before, that, in from ten to twenty minutes after instillation of the drug, the tension gradually increases as well for the whole eye as for the vitreous chamber alone. This, of course, in the healthy eye. The duration of this increase of tension is for a number of hours. He believes that atropine and pilocarpine under physiological conditions diminish the intraocular tension, while eserine primarily increases it. Atropine acts as a specific poison upon the smooth muscular fibers or their nerve-terminations—that is, upon the muscular tissue of the iris, ciliary body, and vessels. Pilocarpine acts upon the glaucomatous eye, not only by its primary action in diminishing the tension, but also by the myosis which it produces, which, however, is much weaker than that produced by eserine. It is indicated in all cases in which the primary effect of eserine is to be feared; but, on the other hand, its use is to be helped by an occasional instillation of eserine in those cases where it can not of itself bring about myosis. Pflüger then formulates his therapeutical indications in glaucoma as follows: 1. Every simple glaucoma should first be treated carefully with myotics. 2. In those cases with normal pupil and anterior chamber, without increase of the intraocular tension, in which, besides the functional disturbance, there exist only the pseudo-excavation and the atrophy of the optic nerve, as well as in the rare cases of subnormal tension, he recommends small doses of eserine (one-fourth-per-cent. sol.) morning and evening for months, and even years. 3. In glaucoma simplex with increased tension, the myotic action of eserine and pilocarpine is all-important, unless the increase of tension is very marked. 4. If myotics fail to reduce the tension in simple glaucoma, he recommends iridectomy in preference to sclerotomy, as more lasting in its effects upon the tension. 5. Certain rare forms of acute glaucoma simplex should be treated with often-repeated instillations of a two-per-cent. solution of pilocarpine; as also that very rare form of glaucoma simplex with abnormally deep anterior chamber and increase of tension. 6. Traumatic glaucoma is best treated with eserine, and if this fails, then by iridectomy. 7. Acute and chronic inflammatory glaucoma is at first best treated with eserine, as preparatory to iridectomy. 8. Eserine is also to be recommended in absolute, or almost absolute, glaucoma with movable iris. In absolute glaucoma with wide, immovable pupil, and a narrow, atrophic edge of iris, adherent to the cornea, eserine may occasionally do good, but sometimes does positive harm. In the latter class of cases sclerotomy is to be preferred to iridectomy. 9. In congenital hydrophthalmus, congenital glaucoma, and glaucoma with aphakia and irideremia, sclerotomy is to be preferred to iridectomy, preceded and followed by the use of eserine. 10. Secondary

glaucoma demands, in the majority of cases, operative treatment, and here a broad iridectomy is the only sure means of relief.

AMYLOID DEGENERATION OF THE EYELIDS.—Rähmann ("Arch. of Ophth.," xi, 4) is of the opinion that the first appearance of the amyloid degeneration must generally be placed in the deeper strata of the conjunctiva. From there the degeneration seems to advance on the one hand toward the epithelium, and on the other toward the tarsus. New investigations have convinced him that all the layers of the lid, not excluding the epithelium, muscles, and glands, may be involved. The lymphoid cells play a prominent part in the true degeneration. While in most of the cases examined the epithelium was intact, in several there was noticed a hyaline, lustrous condition of isolated groups of epithelial cells. The smaller as well as the larger blood-vessels are frequently found intact. While the walls of the blood-vessels are frequently found diseased, they show fewer changes than the other tissues. While the capillaries and smaller vessels show no peculiar stratification in the products of degeneration, transverse sections of the larger arteries exhibit all the stages of degeneration. The adventitia is usually less advanced in the process of degeneration than the media. Here the degeneration leads to the inference that the smooth muscular fibers early undergo degeneration. The fibers of the orbicular muscle are usually affected before the tough connective-tissue fibers of the tarsus. The primary stage of the hyaline as well as of the amyloid degeneration is frequently limited to circumscribed places in the continuity of the muscular fiber. The fiber at these points shows distinct nodular swellings, appears varicose, and loses the appearance of striation. The nodules at first look glassy; later they show the amyloid reaction. The subconjunctival tissue is frequently the principal seat of the whole affection. In such instances, sclerosis of the connective-tissue fiber bundles plays a great part. In one class of cases the swelling of the lid is comparatively insignificant, but the degeneration is unusually pronounced. The moderately swollen tissue is hard and fragile. The fracture-surface is uneven, and the prominent granules upon it appear like fish-spawn or boiled sago. In a second class of cases the swelling of the tissues is much more extensive. The intumescences have the appearance of lymphoid tumors. The swelling of the parts chiefly results from a proliferation of the conjunctival adenoid tissue. Besides these changes, the deep, and even the tarsal, connective tissue is markedly sclerosed. The nuclei of the hypertrophied connective tissue show similar changes. The granulated appearance on slightly magnified specimens, resulting from lymphoid cells scattered through the stroma of the conjunctiva, is lost; the cells coalesce; the tissue assumes stiff forms, as if impregnated with hardened wax. In advanced cases, as long as the tissue is not decayed, the stroma is frequently free from the degeneration.

TUBERCULOSIS OF THE IRIS.—Rüter (*ibid.*) reports a case of this rare disease in a male child two years of age. The lateral half of the anterior chamber was filled with a cheesy mass, which was in contact with the posterior surface of the cornea. The cornea was transparent, but showed a newly developed blood-vessel. In the medial half of the iris gray miliary nodules were here and there visible to the naked eye. The pupil was closed by a thin exudation. Above, in the sclera, near the corneal margin, was a prominent yellowish-white nodule. An attempt was first made to evacuate the cheesy mass. A long lance-cut was made in the corneal margin, and a piece of the iris was drawn out and excised. It was found impossible to evacuate the cheesy mass, because it was attached to the scleral nodule. A mass of granulating tissue soon grew out of the wound, and one month later the eye was enucleated. A careful microscopic examination of the parts showed the case to be one of

tuberculosis of the iris, which, beginning in the miliary form, gradually developed into a tubercular infiltration of the whole iris, and also involved the corneal wound. Subsequently, cyclitis occurred with anterior and posterior adhesions to the iris, and partial clouding of the lens.

THE PHYSIOLOGY OF THE MOVEMENTS OF THE IRIS.—Schadow's article ("Arch. f. Ophth.," xxviii, 3) will, perhaps, admit of some adverse criticism. He formulates his conclusions as follows: The refraction of an eye can not be regarded as prescribing for the diameter of the pupil. In youth, the pupil is wider than in old age, its maximum being from 2 to 3 times, its minimum from 1 to 1.5 times wider. The middle period of life shows the greatest individual differences. Sensory and psychical impressions may be offered as explanatory of this condition of affairs. The constant irregular variations in the size of the pupil must be referred to the change of sensory and psychic irritations. The pupil becomes gradually wider under the lasting effect of the same illumination. This increase, as well as the so-called light-reaction, which consists in rapid contraction with subsequent slow and moderate dilatation, is probably intimately connected with the intensity of perception of the fovea centralis.

THE OPTICAL CONDITIONS OF DOUBLE PUPILS; A DEFENSE OF THE OPERATION FOR ARTIFICIAL PUPIL WITH INTACT SPHINCTER.—Schulek (*ibid.*) has a very long and exhaustive article upon this subject. He begins the discussion as follows: 1. The two light-points of an object visible in Scheiner's experiment and through a double pupil are not two points, but a circle of dispersion. 2. There is no essential connection between the shape of the circle of dispersion and the collective shape of the retinal image. 3. In double pupils, the sensory impression corresponding to the individual circles of dispersion differs from that of coalescing pupils only in being wanting in the blind spots. The confusion in projection is limited to the group of visual elements embraced by the individual circles of dispersion. Whatever lies outside of their range is perceived undistorted in the usual manner. No defect can exist in the projection if the outermost circles of dispersion lie at least so far from each other that their blind spots do not overlap. If, on the contrary, the blind spots of the limiting circles of dispersion overlap, then all light-irritation is wanting in the region of this overlapping, and there is an empty spot in the retinal image as well as in the projection, and occasion is thus given for a doubling or double vision. Single vision, in spite of a double pupil, begins in those retinal images in which only the blind spots of the limiting circles of dispersion do not overlap. Patients with double pupils, who have been operated upon, do not see double images of objects if the objects are not very much smaller than the cross-piece which separates the two pupils. From experiments, Schulek concludes that binocular vision, in spite of circles of dispersion upon the retina of one eye, is possible as long as identical points of the retina at least are illuminated by each point of the object. The conditions for binocular single vision would depend, not upon the equal exactness of the retinal images, but upon the fact that identical lines of projection are contained in the sensory impressions of both sides.

PERSISTENT DROPPING OF FLUID FROM THE NOSTRIL ASSOCIATED WITH ATROPHY OF THE OPTIC NERVES AND OTHER BRAIN SYMPTOMS.—Priestley Smith ("Ophth. Rev.," Jan., 1883) reviews several cases of this nature reported by other authors, and gives in detail two cases of his own. The questions which naturally arise in connection with these cases are three: 1. What was the source of the fluid which dropped from the nose? 2. What was the connection between the flux and the brain symptoms? 3. What relation did polypoid growths in the nose bear to the other morbid changes? In view of the fact

that arrest of the dropping was associated in both cases and on many occasions with symptoms strongly suggestive of cerebral compression, it is difficult at first sight to lay aside the hypothesis of an escape of cerebro-spinal fluid; yet this hypothesis appears to be hardly tenable, for in all four of the recorded cases sugar was absent from the fluid. In both of Smith's cases severe brain symptoms, with eventual atrophy of the optic nerves, preceded the onset of the dropping. May not these have been set up by encroachment of a morbid growth upon the upper wall of its containing cavity, as the sphenoid or ethmoid cells—destruction of the bone and inflammation of the meninges. It is not necessary to assume that the growth pressed upon or in any way affected the optic nerves directly; for in one case certainly, and most probably in the other also, the atrophy of the nerves was consecutive to neuritis, and neuritis demands no special locality for the primary lesion. If the bony septum between the nasal cavities and the brain was actually damaged in the way suggested, it is easy to conceive how a stoppage of the downward flow of the fluid through the nostril might lead to pressure on the brain.

THE PATHOLOGICAL TISSUE CHANGES IN SCLERITIS, EPISCLERITIS, AND VERNAL CATARRH.—Uthoff (Ber. d. oph. Ges.; Beilageheft d. "Kl. Mon. f. Aug.," 1882) has found the following microscopical changes in scleritis and episcleritis. The blood-vessels are almost always increased in caliber, their walls thickened, and their lumen filled with blood. In the sheaths and immediate vicinity of the vessels there is an abundant inflammatory infiltration of round cells, so that in preparations colored with hæmatoxylin the sections appear surrounded by a broad layer of blue-colored cells, while the intervening tissue appears normal. In other preparations the conjunctival tissue between the vessels is filled with a more or less marked inflammatory infiltration, which is most marked immediately beneath the epithelial layer. In still other preparations all the layers of conjunctival and episcleral tissue are infiltrated. In some sections were extensive hæmorrhages. The main change in the lymphatic vessels was an abnormal dilatation of their caliber, which was most marked in the most superficial conjunctival layers. Only in isolated spots was it possible to demonstrate an endothelial layer. In vernal catarrh of the conjunctiva the changes were mainly in the region of the limbus corneæ. The tissues here were of very firm consistence, and of a pale grayish-red color. The chief change was in the epithelial layer, which was markedly thickened, and the superficial cells were flattened. In the subepithelial conjunctival tissue were found long cone-like or club-shaped prolongations of the epithelial layer. The cells of these structures were of about the same shape, with distinct nucleus, but without any concentric lamination. In some places, in cross-sections of these epithelial prolongations, there were found complete epithelial nests, surrounded by connective tissue stroma, which presented a marked resemblance to canceroid growths in appearance. In some places immediately under the epithelial layer was found that peculiar, bright, homogeneous, glistening layer, which is composed partly of spheroidal, partly of elongated homogeneous masses, and which must be regarded as a coagulated, albuminous fluid. The connective-tissue stroma of the conjunctiva was in some places entirely unchanged, while in others there was an abundant cellular infiltration and nuclear hyperplasia of the connective-tissue stroma. The tissue was generally but slightly vascular.

BILATERAL CENTRAL SCOTOMA; THE COURSE OF THE MACULA FIBERS IN THE OPTIC NERVE, CHIASM, AND OPTIC TRACT.—Vossius ("Arch. f. Ophth.," xxviii, 3) here gives the history in detail of a very interesting case, and from it and other published cases draws the following conclusions: The fibers of the optic nerve which supply the region of the macula lie on the

ventral border of the tract and in the upper and outer quadrant, in two regions separated from each other; in the chiasm they lie close beneath the floor of the recessus opticus, but more in the dorsal half, and run in the intracranial portion of the optic nerves exactly central as far as the optic foramen; from here forward they change their relative position and also the shape of the bundles of fibers. While they before this present a prolate ellipse, in the orbit they present an oblate ellipse, almost a crescentic figure, which immediately behind the optic foramen is situated, not exactly centrally, but more toward the temporal side. Here they remain, finally reach, at the point of entrance of the central vessels into the optic nerve, the temporal side, and run into the papilla almost exactly, in the infero-temporal sector of the optic nerve, in the shape of a wedge, with its base at the edge of the optic nerve, and its edge at the line of the central vessels.

JEQUIRITIC OPHTHALMIA.—Wecker ("Ann. d'Oc.," Nov.-Dec., 1882) has employed jequirity in a large number of cases of obstinate granular conjunctivitis, and draws the following conclusions: 1. Lotions of infusion of jequirity seeds produce a purulent ophthalmia of croupous nature, the intensity of which can be regulated by the number of lotions which are employed, and by the strength of the infusion employed. 2. The cornea runs no risk during the evolution of the jequiritic ophthalmia. In only a single case, in which the ophthalmia was pushed to a veritable diphtheritic aspect, was there produced a circumscribed and transient desquamation of the cornea. 3. The jequiritic ophthalmia rapidly cures the granulations, and, even if reproduced several times, it acts with much less danger and discomfort to the patient than inoculation, for it always disappears, without any treatment, by confining the patient for from eight to twelve days in a darkened room.

(To be concluded.)

Letters to the Editor.

THE ACTION OF THE STATE SOCIETY ON THE CODE.

NEW YORK, March 27, 1883.

To the Editor of the New York Medical Journal:

SIR: The "Ephemeris" for March, 1883, contains an account of the proceedings of the Medical Society of the State of New York, with reference to the action taken by that body on the question of the code of ethics. The statements of fact therein contained are in the main accurate, and the inferences drawn from the facts are mostly warranted by them. In a few points, however, I think the editor of the "Ephemeris" is mistaken. He says: "In receiving communications from county medical societies, four more or less vigorous protests against the action of 1882 were presented from Broome, Monroe, Oswego, and Westchester counties, and were referred to the special session for consideration; but neither of these communications received any further attention from the society, either at the special session or at any other time." This is not a fact. The communications referred to were simply ordered on file, from which they might have at any time been taken on motion by the delegates from the counties concerned, or by the leaders of the minority if they had seen fit. That they were not so taken was not the fault of the majority. On page 232 of the "Ephemeris" we find a copy of a resolution, said to have been adopted by the Kings County society, as follows: "Resolved, That this society is in favor of having a code of ethics, and of having one that may be in substantial accord with the principles of the old code of the State society and the present code of the American Medical Association." As much of the present discussion turns on the consultation question, I have referred to the old code to ascertain what might be its principles in this matter. I find, however, nothing expressly defining the qualifications of a person with whom it is proper to consult, except

what may be implied in the following sentence: "All the individuals composing the colleges and medical societies constituted by the Legislature of this State are by them qualified physicians and surgeons." How our friends in Kings County propose to bring this into "substantial accord" with the consultation principles of the American code, I fail to see. It appears to me to be more in accord with the principles of the new code. The editor of the "Ephemeris" complains (page 239) that "the objectors, by skillfully used parliamentary tactics, were able to defeat a vote upon the single simple issue really involved, and which had been alone discussed, and to force a vote upon a confused issue, embracing substitute and supplementary issues never intended to be brought until after the main issue should be decided," etc. As a skillful physician, the leader of the minority surely knows that a delicate stomach will often reject too large or nauseous a dose, which, if administered in divided quantities, will be received and assimilated. As a long-time and experienced member of the State society, he ought to have borne this principle in mind, and have narrowed his resolutions down to the one living issue that was at stake.

On the same page of the "Ephemeris" will be found a paragraph that specially induced the present writer to trouble you with this letter. The paragraph reads (*italics my own*) as follows: "Immediately after the announcement of the vote, *the successful side of the question* stated that this was only a provisional and temporary settlement of the question, and that next year the question would be brought upon the entire abolition of this new code and of all codes," etc. If it had been stated that *a member* of the successful side, etc., I should have left the statement unchallenged. Surely the editor of the "Ephemeris" must know that many, and I believe the majority, of those who voted for the new code are *not* in favor of the abolition of all codes. It can not be denied, however, that there are in this State really three parties in the field—the old-code, the new-code, and the no-code men. At present the new-code party hold the balance of power, and are in the position of conservatives, lying, as it were, between the extreme radical views of the other two.

Respectfully yours,

H. G. P.

HOSPITAL INSTRUCTION IN NEW ENGLAND.

NEW HAVEN, March 22, 1883.

To the Editor of the New York Medical Journal:

SIR: Allow me to correct an error in your Boston Letter dated February 14, 1883, and published in your issue of February 24, 1883.

After speaking of the hospitals of Boston, the writer says: "So much for the direct neighborhood of Boston. The only other hospitals in New England connected with medical education are those at Portland, Maine, and Burlington, Vermont."

In connection with the medical department of Yale College clinical instruction is given during eight months of each year, both in the amphitheatre and in the wards of the Connecticut General Hospital in New Haven, by four surgeons, two physicians, and one gynecologist, on the subjects of Surgery, Practice, and Diseases of Women.

It is evident that your Boston correspondent does not know all that goes on in the medical world in his native New England, and I doubt not he will thank me for calling his attention to his oversight or lack of information.

I am yours truly,

F. E. BECKWITH,

Yale Medical College.

Miscellany.

DEATH OF DR. WILLIAM H. VAN BUREN.—Although it has been known among Dr. Van Buren's friends for some months past that his health had been seriously crippled by a cerebral affection, rendering it highly improbable that he would ever again be able to resume his professional work, and manifestly threatening the early termination of his life, this premonition, nevertheless, scarcely mitigates the shock felt by the

profession, and by his large circle of personal friends, at the announcement of his death, which took place at his house, in Park Avenue, on Sunday last.

William Holme Van Buren, M. D., LL. D., was born in this city, April 5, 1819. His family is said to have come to this country from Holland in the early part of the preceding century, his great-grandfather having been a pupil of Boerhaave. His grandfather and his father also were physicians. His mother was from Philadelphia. Dr. Van Buren was graduated from Yale College in 1838, and from the Medical Department of the University of Pennsylvania in 1840. After this he spent some time in study abroad, and, on his return to New York, married a daughter of the late Dr. Valentine Mott, and soon took a prominent position as a hospital surgeon, as a teacher of anatomy and surgery, and as a family practitioner. At the time of his death he was consulting surgeon to the New York Hospital, Bellevue Hospital, the Presbyterian Hospital, the Hospital for the Ruptured and Crippled, and the Woman's Hospital, having been an active member of the staffs of the two first-mentioned institutions during the earlier part of his career. He was also a member of the Medical Society of the County of New York, of the Academy of Medicine, of the Society for the Relief of the Widows and Orphans of Medical Men, of the Physicians' Mutual Aid Association, and of the Medical and Surgical Society. For many years he was a professor in the Medical Department of the University of the City of New York, which position he resigned to assume that of Professor of the Principles and Practice of Surgery, and Clinical Surgery, in the faculty of Bellevue Hospital Medical College, a chair that he held up to the time of his death.

Dr. Van Buren was not a copious contributor to medical literature, but yet his name is connected with a number of important and valuable publications, the most notable of his early ventures being a translation of Bernard Huet's "Précis iconographique de médecine opératoire et d'anatomie chirurgicale," with notes and additions by himself, in conjunction with the late Dr. C. E. Isaacs. During the late civil war he contributed valuable material to the medical and surgical tracts published by the United States Sanitary Commission, a volunteer auxiliary organization to which his counsels were of the greatest aid. But his most memorable literary works, text-books that are destined beyond all peradventure to maintain his impress on American surgery for many years to come, are his "Practical Treatise on the Surgical Diseases of the Genito-Urinary Organs, including Syphilis," written in conjunction with Dr. Edward L. Keyes, and his "Lectures upon Diseases of the Rectum and the Surgery of the Lower Bowel."

As a surgeon, Dr. Van Buren was cool, methodical, and equal to the most trying emergencies; original, suggestive, and thoroughly to be relied on in consultation—a relation in which our best men always esteemed it a pleasure to meet him. As a teacher, he was earnest, dignified, forcible, and graceful. As an author, his charm of style, his just, nay, generous, appreciation of his contemporaries, the pertinence of his statements, and the aptness of his illustrations, made it easy to follow him, and gave the reader the conviction from the outset that his were no idle words. As a family physician, he won not only the admiration but the warm esteem of his patients. As a man, he was honored and loved; no one could know him without these feelings, and even those who met him only casually imbibed from him a more favorable estimate of the medical profession than they had before held. Such men the profession can ill afford to spare, and rarely has a funeral cortège comprised more genuine mourners than that which followed Dr. Van Buren's remains from St. Patrick's Cathedral on Wednesday last.

THE LATE DR. GEORGE M. BEARD.—At a meeting of the Medical Society of the County of New York, held on Monday evening, the 26th inst., Dr. A. D. Rockwell presented the following resolutions:

Resolved, That in the death of Dr. George M. Beard this society and the profession at large have lost one of their most brilliant, active, and earnest members. As an investigator, he was original and conscientious. As a friend, he was generous and steadfast. Exposed by his restless activity to many and peculiar attacks, he ever manifested the utmost charity and good humor. Of his worst enemies he seldom spoke a harsh, and never a vindictive word.

Resolved, That to his child and other relatives we tender our heartfelt sympathy.

Resolved, That these resolutions be published in the medical journals of this city.

"In presenting these resolutions," said Dr. Rockwell, "I would simply add that, having been for many years associated with Dr. Beard in a peculiarly close intimacy, it was my fortune to know him, perhaps, better than most others. His self-poise was remarkable. As a foil, so to speak, to the many attacks that followed his original investigations, and his positive and independent methods of expression, he seemed almost to live and move and have his being in humor. His powers were of the most versatile character. His readiness and originality as a scientific writer are well known, but it is not so well understood that he had a genius for an entirely different sort of literary work. While a very young man, serving, during the late war, in the Gulf Squadron, and merely to give vent to his ever-restless mind, he penned a work of fiction which gave evidence of no mean talent in that direction; and since his death an autobiographical sketch has come to light which, for its quaint humor, its keen estimate of character, and its philosophical conclusions, is unsurpassed. I could say much in regard to this individuality, through which ran so rich a vein, and which was in many respects as unique and remarkable as any I have ever known or read of, but I forbear, and content myself with the brief but just tribute embodied in the resolutions."

After brief remarks by Dr. D. B. St. John Roosa and Dr. Wesley M. Carpenter, setting forth Dr. Beard's nobility of character, the resolutions were adopted.

NEW DELEGATES TO THE STATE SOCIETY.—At the same meeting an election was held to fill three vacancies in the society's delegation to the Medical Society of the State of New York, and resulted in the choice of the following-named gentlemen: Dr. Charles A. Leale, Dr. Charles S. Ward, and Dr. Charles Hitchcock. As these gentlemen were nominated and supported by those who favor the restoration of the old code of ethics, their election is a point gained by that party in the profession.

THE CODE OF MEDICAL ETHICS.—This perennial question of medical ethics has received the most considerable agitation for many years, in the late action of the New York Medical Society in reaffirming its position in the matter of meeting practitioners who may have special and peculiar conceptions of the action of medicine. This action is all the more significant from the fact that the indications are that it is intended, by those who took the lead in securing it, to be but preliminary to an attempt, which will be made at the next meeting of the society, to abolish entirely all codical restrictions, thus placing the practice of medicine on the same footing in this regard as all the other callings of men. We believe there is a by no means insignificant number of physicians who regard the code not only as useless, but also as positively narrowing in its influence, and favoring hypocrisy and deceit. These argue that a physician may be a paragon of ethical propriety, and at the same time be guilty of conduct against which the instincts of a gentleman would indignantly rebel. If this be true, wherein lies the value of the code? We venture the statement that of the 75,000 practitioners of medicine of this country, not ten per cent. have ever read the code of ethics of the American Medical Association, and that not five per cent. even of the ethically correct in their deportment toward both the public and their brother practitioners remember enough of it to be of the slightest possible value to them as a guide to conduct. Certain it is that as a guide to the every-day conduct of the physician, it is as if it did not exist. The gentleman does not require it, and he who is not a gentleman can utilize it to cloak his rascality. One of the greatest sticklers for the code whom we know is notoriously unfair toward his brother practitioners, injuring them by innuendo, and robbing them of their patients when he can. Correct medical conduct requires more than can be formulated in words. It requires that rare admixture of regard for others, self-respect, charity, and magnanimity which goes to make up the gentleman. No code can define the constituents of this admixture, and any code which can not define it is useless and in many respects injurious. Better than such a code is the unwritten and indefinable law which defines a gentleman. If physi-

cians were absolved from the obligations of gentlemen and required only not to violate the code of ethics of the American Medical Association, the profession of medicine would soon cease to be the honorable calling that it is.—*Med. Age.*

THE FRUITS OF THE NEW CODE.—Under this heading, a letter signed "Jason" appeared in the "Louisville Medical News" for March 17th: "Since the late meeting of the New York State Medical Society and the adoption of the so-called New Code of Ethics, there is a desire among the members of the profession in this city to obtain a list of the members of the society mentioned who advocated and who approve this departure. It can not be regarded as anything more or less than a desire to affiliate with and encourage quackery, and the authors of the movement should be permitted by reputable members of the profession to enjoy the inconveniences as well as advantages of their chosen position. It is often necessary to refer our friends and patients going eastward to physicians, and it is important to know these members of the New York State Society who have voluntarily severed their connection with the medical profession of the country, so that we may advise accordingly. You will confer a favor upon many of your readers if you will publish the 'black list' in an early number of the 'News.' See my card inclosed herewith."

NEW YORK SPECIALISTS.—After stating that a bill was recently introduced into the New York Senate to prohibit medical societies from adopting rules forbidding practitioners from conferring with others than those of their own school of medicine, the "Medical and Surgical Reporter," of Philadelphia, adds: "This looks like a desperate endeavor on the part of those New York specialists who are itching to consult with all sorts of irregulars in order to increase their income."

WITHDRAWALS FROM A HOMŒOPATHIC SOCIETY.—We are informed that Dr. E. P. Fowler, Dr. J. C. Minor, Dr. Alfred K. Hills, and Dr. Arthur T. Hills have resigned from the Homœopathic Medical Society of the County of New York. Our informant considers this action on their part as foreshadowing their renunciation of sectarianism, a step he thinks they feel encouraged to take by the recent confirmation of the new code.

THE JOHNS HOPKINS MEDICAL SCHOOL.—It is stated that the Medical School of the Johns Hopkins University, in Baltimore, will be opened before the close of the year.

NOTES FROM CHINA.—A correspondent who signs himself "K" writes us as follows: "The Forty-fourth Annual Meeting of the Medical Missionary Society was held in Canton, February 2, 1883, G. Nye, Esq., in the chair. The Hon. Peter Parker, M. D., of Washington, D. C., is president of this society, and the senior vice-president is Prof. S. Wells Williams, LL. D., of New Haven, Conn., both of whom were present at the formation of the society in 1838. The report showed that the aggregate attendance of out-patients was 19,199, and 1,182 in-patients had been treated. The number of surgical operations was 963, of which 47 were lithotomy, 23 lithotrity, 56 excision of lens for cataract, 74 removal of tumors, etc.

"The cholera prevailed as an epidemic during the summer and autumn months in the Philippine Islands, the Island of Hainan (a large island off the southern coast of China), in Cochin China, and Siam. Some cases occurred in Canton, and there may have been cases in the southern part of this province, on the mainland, but it is not known to have existed as an epidemic. The only statistics at hand give the deaths in Manila.

"The total deaths from August 19th to December 12th were 5,413, of which 99 were Europeans; 789 were Chinese; 4,525 were natives; 576 were male children; 411 were female children; 2,088 were male adults; 1,549 were female adults. The greatest mortality was on the 2d of September, when there were 339 deaths.

"A coroner's inquest, protracted through several weeks, has been held in Hong Kong, and excited a great deal of interest. The occasion was the sudden death of one Captain Lee in his berth on board his steamer, which was in dock. Nitrite of amyl was supplied to him by Dr. Fisher, an American doctor practicing in Hong Kong, who hails from the 'University of Fort Wayne, Indiana.' A post-mortem showed extensive disease of both lungs. Dr. Fisher had told him his lungs

were not diseased, and treated him for angina pectoris. After a long examination no definite result was obtained. Grave doubts were left on the public mind as to the skill and judgment of the doctor who holds his degree from the 'University of Fort Wayne.'

DR. G. H. KIDD, OF DUBLIN.—At the approaching Commencements in the University of Dublin, the honorary degree of *Magister in Arte Obstetrica* will be conferred on Dr. Kidd. This recognition on the part of the Board of Trinity College, of the position Dr. Kidd occupies in that branch of the profession, which his skill and practice have done so much to advance, will meet with the widest approval. Dr. Kidd is Master of the Coombe Lying-in Hospital, and an ex-president of the Royal College of Surgeons in Ireland, and of the Dublin branch.—*Brit. Med. Jour.*

THE YELLOWSTONE PARK MINERAL WATERS.—The "Army and Navy Journal" states that the Secretary of War has sent to the Interior Department a letter from Assistant Surgeon Charles L. Heizmann, U. S. Army, in regard to the medicinal properties of the waters of the mineral springs in the Yellowstone Park, recommending that, in granting leases or franchises to this public domain, the Government should retain the privilege of control over the springs.

ERRATUM.—In Dr. Hopkins's article, in our issue of March 17th, p. 289, first column, fourth line from the bottom, for "supplanted" read *supplemented*.

DEATH OF PROFESSOR VON RINECKER.—Professor von Rinecker, the well-known writer on psychiatry, diseases of children, etc., died recently in Würzburg.

ACTIVE LOCAL TREATMENT IN GLEET.—Dr. J. S. Main writes as follows to the "British Medical Journal": G. B., aged nineteen, intelligent, of strumous temperament, came under my care over twelve months ago, suffering from gleet of five weeks' duration, following upon a sharp attack of gonorrhœa. The discharge was abundant and purulent; the patient himself in a weak condition, and suffering considerably from moral depression. Exploration with a bulbous-pointed catheter enabled me to detect that the raw surface lay just behind the fossa navicularis, and so I thought it a good case for local treatment. Accordingly, having kept the patient in bed, and prepared him by giving, a few hours previously, thirty minims of laudanum, I inserted a medicated urethral bougie containing half a grain of nitrate of silver (the patient having previously emptied his bladder), the orifice of the urethra being kept closed by lateral pressure with the fingers. This "bit" rather severely, and was followed by the symptoms of acute urethritis. After these had passed off, however, I found that the treatment had been effectual, as no symptoms of gleet returned.

I have just lately seen this patient, and he informs me that the cure has been permanent. He mentions, however, that for some months afterward, when he thought "his stomach was out of order," he felt a hot sensation at the part when making water, followed by a sensation of itching. The only other treatment in this case was a tonic of steel and quinine to relieve the depression.

I would remark that, in such cases, unless the patient can be kept in bed for a few days afterward, active local treatment can not be entertained. I have known a case in which acute epididymitis with orchitis (testitis of Bryant) followed the use of a strong injection of sulphate of zinc, the patient being allowed to go about as usual. Supporting the testicles with a suspensory bandage is not sufficient in such cases. In all cases, however, where active local treatment is employed, it is useful, and should not be omitted.

THE OBSTETRICAL SOCIETY OF LONDON.—At the recent annual meeting the following gentlemen were elected officers for 1883: Honorary President, Dr. Arthur Farre; President, Dr. Gervis; Vice-Presidents, Dr. John Brunton, Dr. F. H. Daly, Dr. Clement Godson, Mr. Jonathan Hutchinson, Dr. John Thorburn (Manchester), Mr. J. Lucas Worship (Sevenoaks); Treasurer, Dr. J. B. Potter; Honorary Secretaries, Dr. Galabin, Dr. Herman; Honorary Librarian, Dr. Champneys; other Members of Council, Drs. H. C. Andrews, G. P. Bate, Henry Bennet (Weybridge), P. L. Burchell, T. E. Charles (Cannes), Edward Malins (Birmingham), G. C. P. Murray, W. S. Playfair, George Roper, William

Stephenson (Aberdeen), W. H. Strange, John Wallace (Liverpool), G. E. Yarrow, Sir Joseph Fayrer, and Messrs. Charles J. Cullingworth (Manchester), Alban Doran, Walter Rigden, and John Knowsley Thornton.

BABY-FARMING.—A law lately passed by the Legislature of the State of New York requires persons who board infants to take out a license, and to be subject to inspection by the officers of societies for the prevention of cruelty to children. The power to grant licenses, which are revocable, is given to the Mayor and the Board of Health. Incorporated institutions are excepted from the operation of the law.

ARMY INTELLIGENCE.—*Official List of Changes of Stations and Duties of Officers of the Medical Department, United States Army, from March 17, 1883, to March 24, 1883.*—MURRAY, ROBERT, Colonel and Assistant Surgeon-General. Detailed as member of Army Retiring Board to convene at the call of the president thereof, at Governor's Island, New York Harbor, for the examination of such officers as may be ordered before it. Par. 2, S. O. 62, A. G. O., March 16, 1883. — SUMMERS, JOHN E., Lieutenant-Colonel and Surgeon. Detailed as member of Army Retiring Board to convene at the call of the president thereof, at Omaha, Nebraska, for the examination of such officers as may be ordered before it. Par. 9, S. O. 62, A. G. O., March 16, 1883. — BILI, JOSEPH H., Major and Surgeon. Detailed as member of Army Retiring Board to convene at the call of the president thereof, at Omaha, Nebraska, for the examination of such officers as may be ordered before it. Par. 9, S. O. 62, A. G. O., March 16, 1883. — IRWIN, B. J. D., Major and Surgeon. Detailed as member of General Court Martial to meet at Whipple Barracks, Prescott, Arizona Territory, April 23, 1883, for trial of Captain J. P. Walker, Third Cavalry. Par. 1, S. O. 62, A. G. O., March 6, 1883. — JANEWAY, JOHN H., Major and Surgeon. Detailed as member of Army Retiring Board to convene at Governor's Island, New York Harbor, for the examination of such officers as may be ordered before it. Par. 2, S. O. 62, A. G. O., March 16, 1883. — BURTON, HENRY G., Captain and Assistant Surgeon. To be relieved from duty in the Department of the East, and will report in person to the commanding general, Department of Dakota, for assignment to duty. Par. 1, S. O. 67, A. G. O., March 22, 1883. — GIRARD, JOSEPH B., Captain and Assistant Surgeon. Detailed as member of General Court Martial to meet at Whipple Barracks, Prescott, Arizona Territory, April 23, 1883, for trial of Captain J. P. Walker, Third Cavalry. Par. 1, S. O. 62, A. G. O., March 16, 1883. — PORTER, JOSEPH Y., Captain and Assistant Surgeon. To be relieved from duty in the Department of the South, and will report in person to the commanding general, Department of Texas, for assignment to duty. Par. 1, S. O. 67, A. G. O., March 22, 1883. — WINNE, CHARLES K., Captain and Assistant Surgeon. Granted leave of absence for three months from March 31, 1883, and will be relieved from duty in the Department of the East, and, upon the expiration of his leave of absence, will report in person to the commanding general, Department of California, for assignment to duty. S. O. 61, A. G. O., March 15, 1883.

NAVAL INTELLIGENCE.—Passed Assistant Surgeon Nelson McP. Ferebee has reported for duty at the Norfolk Navy Yard. — Passed Assistant Surgeon Magruder, now on special duty at Ville Franche, has been ordered to proceed at once to Malta, to render personal attention to Commander Dewey, who is sick at the English Hospital there. — It is said that the death of Mrs. Heneberger, the wife of Passed Assistant Surgeon L. G. Heneberger, was due to a subcutaneous injection of two drachms of [? a solution of] morphine, used by mistake instead of carbolic acid. — Surgeon John H. Clark has been ordered to hold himself in readiness for sea service on being relieved as a member of the Medical Board. — At the Naval Hospital and the Naval Laboratory, Brooklyn, Dr. Bloodgood, now in charge of the hospital, succeeds Dr. Coates at the laboratory, and is relieved at the hospital by Medical Director Richard C. Deane, now on duty in Philadelphia. — Assistant Surgeon James D. Gatewood acted as judge-advocate at a summary court-martial lately convened on board the New Hampshire at Newport. — We are indebted to the "Army and Navy Journal" for the foregoing items.

Lectures and Addresses.

LECTURES ON HUMAN AUTOMATISM.

DELIVERED AT THE LOWELL INSTITUTE, BOSTON,

BY WILLIAM B. CARPENTER, M. D., LL. D., F. R. S., ETC.

LECTURE III.

(Concluded from page 312.)

I pass now to another set of cases—the secondarily automatic actions performed during profound sleep. I remember when my friend, Sir James Fitz James Stephen, now one of our most distinguished judges, came home from India, whither he had been sent as the legislative member of the council, he told me, in speaking of this subject, that he had noticed that the punkah-pullers would go on just as well during sleep as when awake. (I suppose I need hardly tell you that a punkah is a frame suspended from the ceiling by hinges or cords, with a large piece of linen or muslin stretching across it—in fact, a fan upon a gigantic scale—which is pulled backward and forward by a string from the outside of the room, for hours together, over the head of any one who wishes to enjoy the movement of air produced by it.) “But,” added my friend, “you must consider that these punkah-pullers have probably been exercising their vocation hereditarily for some thousands of years,” which is no doubt the case, because (as you know) everything in India goes by *caste*; and there is a caste of punkah-pullers just as there is a caste of cooks, or a caste of weavers. And in regard to this last-named caste, it occurs to me to suggest whether the extraordinary manual skill of the spinners and weavers of those wonderfully fine Dacca muslins that are sometimes called “woven air” is not partly the result of an hereditary capacity for its acquirement, originally developed and improved by habitual training, and ultimately becoming embodied (as it were) in their physical constitution.

Before proceeding to consider how the will originally shapes that mechanism, I shall call your attention to some other forms of secondarily automatic action, in which we have combinations of a more complex kind, that can only be made under the guidance of sensations.

Let us take, in the first place, the act of speech. The learning to talk, as you must have all observed, is usually, in the first place, a very slow process on the part of the infant. We occasionally, it is true, meet with instances in which it seems to have been more rapid, the child having gone on to three years of age, or even more, scarcely uttering a dozen words, but obviously understanding all that was said, and at last coming out with articulate speech of a very complete kind—not the ordinary infantile speech, but the speech of a grown child. But in these cases there has been really a long training, for the child has been storing up these impressions of the words *as heard*, which become his guide in the future utterance of them; and, by the acquirement of even a small number of spoken words, he has brought the apparatus into working order, so as to be able to give expression to the conceptions he has mentally formulated. In this respect, the

child who talks late has a decided advantage over the one who begins much earlier, for it is clear, in regard to the latter, that the guidance of recollected impressions is much less distinct.

Now, articulate speech involves two distinct classes of actions—the production of vocal tones by the laryngeal apparatus, and the shaping these tones into words by the movements of the tongue, lips, and other organs of articulation. Both these kinds of action are differentiated from our ordinary muscular movements in this, that they are normally guided, not by the “muscular sense,” which enables us to appreciate the degree of tension or strain that we are calling upon the muscles to exert, but by the sounds which the vocal apparatus gives forth; that is, by the auditory impressions we receive through our ears. This is the case equally in the production of vocal tones by the action of the laryngeal muscles (in conjunction with the muscles of expiration), and in the modification of those tones by the muscles of articulation.

And it is equally, and even more remarkably, the case in the production of musical tones in singing, the pitch of these tones depending upon the tension of the vocal cords, which has to be regulated with the most extraordinary precision by the action of the laryngeal muscles, in order that we may sing “in tune.” To do this, you must first have a distinct conception of the tone to be uttered; and, if your hearing tells you that you are not sounding it correctly, you strive to bring it into accord, either with your own conception, or with the voice or instrument which is accompanying you. When a singer does not keep good tune (I have known this the case with admirable and highly trained voices), the fault is commonly attributed to a “bad ear.” But this is not usually the case. The source of it lies in imperfect control over the mechanism of vocalization, which is very often the consequence of emotional disturbance. The singer knows well that he (or she) is singing woefully out of tune, and yet feels powerless to get right until (it may be) the trouble is forgotten in the interest of the music, or the dramatic singer “warms” to his performance.*

Every one knows that a child born perfectly deaf (or “deaf-mute”) can not learn speech in the ordinary way; and that, if left to itself, it will never acquire the power of vocalization. Its only vocal utterance is a mere inarticulate cry, which it does not itself hear, and which is the expression of its emotions, not of any intellectual condition. But by taking advantage of another class of sensations—those received through the “muscular sense” of the vocal muscles themselves—and, by a very careful and difficult process of training based on these, the deaf-mute may be taught to speak articulately. The mode in which this is brought about is elucidated in a very interesting way by the recorded experience of a man of whom many of you have doubtless heard—the late Dr. Kitto, a biblical scholar of considerable eminence, who was held in high estimation in England for his knowledge of eastern languages, life, and usages, which he had acquired by study and travel.

* I well remember this to have been the case with two of the finest vocalists of my earlier days, Mrs. Alfred Shaw and Ronconi.

Dr. Kitto, in a little book called "The Lost Senses" (which he wrote at the request of Mr. Charles Knight, a well-known publisher in London), recorded the facts of his early life briefly in this form: He was a peasant lad, his father being an ordinary day laborer, and had been brought up with scarcely any school instruction or early training. He was not born deaf, but became so by accident. When he was about nine years old he fell from the roof of a house he was thatching, and was taken up perfectly insensible. I gather, from the details which he gives, that there was most probably a fracture across the base of his skull, which completely ruptured the two nerves of hearing, tearing them through in a way which prevented their ever reuniting. From that time he was as perfectly deaf as any one born in that condition, the loss of his sense of hearing being more complete than I have known it to be in the case of any other person who has once heard. He lay for, I think, ten days in a state of insensibility; and then, when he began to recover, this deafness soon made itself felt, for he could not hear any sound whatever. He goes on to tell that he very soon began to give up speaking, for he felt the attempt to speak gave him a painful feeling in his throat. I believe the meaning of this to have been, that, having lost the guiding sensation of sound, he had to fall back upon the muscular sensations originating in the muscles themselves—sensations which we entirely disregard in our usual state when we are under the guidance of our hearing; and that the discomfort was due to the intensification of these sensations by the attention he gave them while endeavoring to regulate his speech by the indications they furnished him. It was sufficient to cause him to give up all attempts to speak for many years.

I may give you a means of testing for yourselves the effect of this kind of substitution. The movements of our eyes are ordinarily guided by the visual sense instead of by the muscular sense of the muscles themselves; but if you will go with your eyes open into a room that is *perfectly* dark, or in a room which is partly light, will not only close your eyes but completely cover them up by your hands, so as to let in no light whatever from the outside, you will find that, if you try to move your eyes upward, downward, or to either side, you will have a very uncomfortable feeling of tension in the muscles of your eyes. And every ophthalmic surgeon knows how difficult it often is, in cases of such total blindness that even light is not distinguished, to get the patient to move his eyes in any given direction. He has not the ordinary guiding sensation, and has not learned to adapt himself to any other. This was, I think, young Kitto's condition when he first lost his hearing. He continued in this condition for several years, applying himself to literary study, in which he succeeded so well as to obtain much notice in his rural neighborhood. It then came about that he was taken out to the East by some kind missionaries, who, finding that he had once known how to speak, refused to hold converse with him by his slate. They told him that he ought to put himself as much as possible in the condition of other persons, and that the kindest thing that they could do was to make him speak; and gradually he acquired the power of vocalization again, and could get on in very much the same way as regards speech that the deaf mutes do. These, as you know, are

now very commonly taught to speak by a systematic process of training. The first thing to be done in teaching a deaf-mute to speak is to get the child to utter a vocal tone. You have, I dare say, formerly heard deaf-mutes trained on the old method—speaking in a kind of hoarse whisper, having been taught to articulate, but not to produce a real voice. The way in which this is now done (at least in which I have myself seen it done, which I suppose to be the usual method) is to place the child's finger upon the larynx of the teacher, who then utters a vocal tone; and the child feels the thrill or vibration that the utterance of that tone produces. The child's finger is then placed upon its own larynx, and it is encouraged to go on making efforts, until it feels the corresponding thrill in itself; and, once the vocal tone is brought out in that manner, the child can reproduce it after a time by his own will. This becomes the basis of all further training, the conversion of this vocal tone into articulate speech being effected by movements which the pupil can be taught to imitate by seeing them executed by his teacher.

Here, then, we see exactly the same process as is followed in any other training for the performance of one of the secondary automatic movements we have been considering, viz.: the direction of the attention to the act, in the first instance, and then the calling forth of the effort to imitate it. Look at the child learning to walk. You recognize at once the expression of feeling which the child has of the want of balance, and which is itself the result of the attention it gives to the indications of the muscular sense; and, by continued attention to this, the child is gradually taught to perceive that by calling certain muscles into action it can maintain its balance. The training is precisely the same that the rope-dancer has to go through to walk on a rope or a wire, only that in the infant it is given by another whose help is always ready to prevent injury and remove the feeling of alarm which interferes with the automatic regulation; while the rope-dancer volitionally trains himself to bring the balancing apparatus of his body to work automatically in accordance with the communications it receives through the organs of sense.

Now, I believe the same to be the case even with our (so called) voluntary acts, for each of us has first to train his automaton to do the work which he desires to execute. Take the act of writing or of drawing, billiard playing, or music playing of any kind, or any skilled artisan work; I need not tell you that, however strongly we may *will* to perform either of them, we can not do so without *practice*. We must *learn* to do it; and the "learning" consists in the shaping of our automatic mechanism to the particular kind of action, and so bringing it under the control of the will as readily to execute its behests—the Cerebrum saying to the Axial Cord (if I may use the metaphor), "Do this," and the Axial Cord obediently doing it *for* us, not *by* us. You have heard of the sailor who was asked if he could play the fiddle, and who said, "Well, he didn't know, he couldn't tell till he tried." You all know what would happen if he did try. He might be musician enough to be able to read music perfectly, so as to know the import of every note and interval, and thus to study the violin-part mentally; he might know, too, how the violin is tuned, and what are the notes which every string will give according to the manner in which it

is "stopped"; he might have mastered, theoretically, the mode in which his fingers should be placed to bring out each note of every string; and yet you know perfectly well how utterly powerless he would be to play the violin until he had *practiced* it. Such practice consists in bringing the movements of the hand into direct response to the impressions received through the eye, the ear, and the muscular sense, and to the mental conception of the sounds he desires to evoke. The automatic mechanism of the accomplished violin-player becomes capable of executing without difficulty any music (suitable for the instrument) which his eye can read, or his ear hear, or his imagination conceive, his will simply directing it (like the "conductor" of an orchestra) and fixing the attention, where necessary, on the *nuances* which require particular expression. And the same is the case, of course, with performance on any other musical instrument. Now, see what may happen to a musician thus trained, in playing a piece which, though it may be really very difficult, he has so thoroughly mastered by practice that its performance has become easy to him, the mechanism to execute it having, so to speak, been constructed in his organism.

I dare say that every lady or gentleman in this hall who may be a performer on any musical instrument knows perfectly well that a piece may be played, and played correctly, in good time, the *pianos* and *fortes* well observed, and with appropriate "expression," when called for, while the *mind* of the performer is engaged upon some subject altogether different. Many a young lady has been known to go through a "piece," when called upon to "play," with her thoughts and feelings entirely engrossed upon her own love affairs, or some other interesting subject, and has said to her confidential friend at the end of it, "I really wonder how I could have got through it."

I can give you another very curious illustration of this independent action of the trained mechanism, as shown in the performance of a very similar exercise under extremely peculiar circumstances. Some of you may have heard, in days long past, a very successful London entertainer, Albert Smith, who gave a humorous recitation, occupying about an hour, descriptive of the Overland Route (when that was a novelty), afterward of an ascent of Mont Blanc, always including a very amusing "patter-song," as it is called, which he sung to his own accompaniment on the piano, bringing in any topic of the day. Albert Smith went through this entertainment day after day, occasionally varying it a little by the introduction of a new verse into the song, many thousands of times, and his performance of it had come to be so completely automatic that, on one occasion, having received, immediately before its commencement, a letter informing him that a firm had failed in which he had invested a very large sum of money, nearly the whole of his savings (he was a careful man, and not at all of the reckless type), he went through it as usual, though he afterward said that he had not the slightest recollection of anything but the intelligence he had just received, which kept complete possession of his thoughts during the whole performance. According to my view, Albert Smith's cerebrum and his automatic apparatus were *functionally* dis severed in this condition, each going on

with its own work independently of the other. And, however incredible it may seem to a metaphysician that a train of action which he would regard as essentially *mental* could be kept up by a bodily mechanism, the only alternative lies in the hypothesis of two distinct personalities—one, Albert Smith thinking about the loss of his money, and the other giving his mind to his performance. This is so manifestly absurd that I feel sure you will agree with me in regarding the performance as the expression, not of Albert Smith's *then* mind, but of his *former* mind, which had so completely impressed itself upon his automatic mechanism by multitudinous repetitions of the same series of acts that the latter, when once started, could go on of itself to the completion of it. And I shall now give you a very curious example of this independent action in another kind of performance, viz., music playing.

Since the publication of my views on this subject, I have received many valuable communications in relation to it; and among them one from a clergyman in Yorkshire, narrating an experience of his own, which he thought would interest me; and I present it to you nearly in his own words. When a student at Trinity College, Dublin, my informant was one evening at a party, at which, after supper, the young people thought they would like to have a dance. A lady who was there, the wife of a surgeon in the army, was asked to the piano, it being known that she could play dance-music of any kind from memory with great facility. Soon after she sat down to the instrument, however, it appeared that she had taken too much wine at supper, for her eyelids dropped, her head fell forward, and she showed every sign of sleep except snoring, being, in fact, so drunk as to be totally unable to rise from her music-stool. Yet she went on continuously with the quadrille she was playing, keeping the time perfectly, and the only difficulty was to stop her when the dance was over. If she was then awakened sufficiently to make her understand what was next wanted, and her hands were placed on the keys, she would start off afresh, soon relapsing into profound sleep, but continuing to play well—her automatic performance going on until it was again stopped.

This case will, I think, satisfy you that not only long successions of similar movements (as in walking), but successions of dissimilar movements, if linked together by frequent repetition, may be performed without any other act of the will than what is needed to set them going.

The process by which our automatic mechanism constructs itself, so as to reproduce by its own independent activity the sequences it has been trained to execute, finds a curious parallel in Edison's phonograph. You know that if you speak into the mouth-piece of this apparatus while its barrel turns, the vibrations produced in its metallic disc by the vocal sounds so impress themselves on the smooth surface of the revolving barrel that when, by shifting the barrel, these indentations are caused to pass in succession under the point that made them, they reproduce, by its connection with the disc, the vibrations originally given to it by the voice, and cause it to utter articulate sounds bearing a more or less close resemblance to the words that had been spoken into the mouth-piece. And it is quite conceivable that, by an appropriate mechanism attached to an organ, a player could so

indent the surface of a revolving barrel that every note he has caused the pipes to utter should be accurately recorded, so that the subsequent turning of the barrel should cause the instrument to reproduce them in their exact sequences and combinations. I think you will agree with me that, in the case I last cited, the performer was just as much an automaton as a musical box or mechanical organ, which thus gives forth the tunes set on its barrel. And the only difference that I can see between her condition and that of a practiced musician who goes through a similar performance wide awake, but thinking of something else all the time, is that the latter has it in his own power to go on or to stop playing, his cerebrum, instead of being altogether inactive, being otherwise engaged, but being accessible to any intimations that may call into exercise his control over his automatic mechanism.

This last condition is so common—I might say, so universal—as regards the act of walking, that I can scarcely doubt its having fallen within the personal experience of every one present. Nothing is more common than the continuance of the regularly alternating movements of the legs while the attention is uninterruptedly fixed either on a train of thought which occupies the mind of the subject, or on the maintenance of a close conversation with a companion. I remember to have heard from John Stuart Mill that he thus thought out his “System of Logic” during his daily walks between his residence and the India House, trusting to his automatism to transport him from one to the other, according to the direction it had habitually received. Yet if any unusual occurrence had interrupted his cogitations, and called his attention to his “environment,” his cerebrum would have resumed its control over his automaton, and adapted its action to whatever new requirement might have arisen.

I shall add one more illustration, which, I think, will interest you. Among other communications I have received on this subject were some from telegraph clerks, who told me that they could transmit a message—taking in its words by their vision, translating these (as it were) into telegraphic signs, and manually communicating these signs to the telegraph-instrument—without *thinking* about the message, or even apprehending its meaning, their minds being entirely occupied by their own thoughts. And one of my informants went so far as to say that he thought he did his work better in that condition than when his mind was consciously given to it, finding himself less likely to make mistakes when he left his automaton to do it for him than when he gave his attention to its working. Another assured me that he was quite certain he had not only himself telegraphed messages in his sleep, but that he had seen other clerks do it. I do not think that this statement is at all more incredible than the case of the lady piano-forte player I have already cited; because we know that the eyes may be open to receive and transmit visual impressions, when the *consciousness* of these impressions in the receiving center is suspended in sleep. And I do not see any difficulty in supposing that the impressions so made on the receiving organ, which has been trained to respond to them automatically, may excite the respondent movements, even without that consciousness

of the impressions in which *sight* consists. I do not say that I consider the fact to be proved, because I think that my informant may possibly have deceived himself. But I submit it to you as a reasonable probability which accords with other experiences of the same class.

I wish to say a few words in conclusion with respect to a series of phenomena which I think important to the full understanding of this automatism, though they are not normal, but morbid. They are forms of reflex activity which are called forth through the axial cord, and may be produced either by some over-excitability in the central organ to ordinary stimuli, or by some abnormal excess of stimulation, originating in the parts from which the stimulus is conveyed to the centers. You have all heard of the state called *tetanus*, commonly called “lock-jaw”; lock-jaw, however, being only one form of the tetanic convulsion. This condition is sometimes the result of the administration of a poison—strychnine, for example—which produces an excessive excitability of the spinal cord, the upward prolongation of which forming that higher part of the axial cord which lies within the skull, and constitutes the ganglionic center of the special senses, not being affected. A similar excitability occasionally arises spontaneously from some morbid process dependent on local injury; and the fatal termination of the tetanic convulsion is generally the result of the spasmodic fixation of the respiratory muscles. But in hydrophobia a somewhat similar convulsive action is occasioned by the peculiarly excitable condition of the upper part of the axial cord, the impressions received through the special senses being very apt to call it forth. This, as is well known, is peculiarly the case with the *sight* or the *sound* of water; but it is a very noteworthy fact that the sight of a *picture* of waters, or even the verbal suggestion of the *idea* of waters, will often call forth the hydrophobic spasm. This presents us with the analogue in disease of what I have already pointed out to you in regard to the ordinary act of coughing—namely, that the same automatic action of the axial cord may be called forth either by an impression transmitted to it through some afferent nerve, or by a mandate sent down to it from the cerebrum. Thus, in the hydrophobic condition, the ideational state produced either by the verbal suggestion of water, or by a picture of water, operates in exactly the same way as the excitant of the terrible spasm, as do the actual sight and sound of water called up by sense-impressions received from the eye or the ear.

Another example of the reflex character of these convulsions is presented by a form of disease which many of you have perhaps unhappily witnessed—the teething convulsion or spasmodic croup of infants. The stimulus which excites this convulsion is given by the pressure of the advancing tooth against the capsule which it is trying to break through; and the convulsive attack is often relieved for a time by lancing the gum. But the condition of the nerve-centers which makes that irritation call forth the spasm is very often due to bad air or bad food; and thus, as I have often seen, change of air may immediately remove the tendency to this convulsion which had previously shown itself with the advance of every tooth.

There is one more action that we scarcely term abnormal

—one which affords a singularly good illustration of the view which I have been endeavoring to impress upon you; the act of yawning is essentially a respiratory movement, and naturally arises in this way. We have been sitting with our attention fixed—I dare say that some of you feel a strong tendency to it at this moment—during an hour's lecture, it may be; our ordinary respiratory movements have been restrained; we have not, as we usually do when at ease and liberty, taken every now and then a longer and fuller inspiration than usual, which clears the chest of any excess of foul air that may have remained in it; and we accordingly feel a discomfort resulting from its accumulation. Thus is called forth a peculiarly long inspiration, attended with a wide gaping of the mouth. But this movement may also be called forth by what we call imitation; the sight or the sound of one person's yawn often produces the yawn in another. There used to be a story current in Glasgow, many years ago, of a professor who unfortunately dislocated his lower jaw whenever he gaped very wide; and the joke used to be that, when the students were tired of his lecture, they would get up a yawn among themselves, which would go round the class and be then caught by the professor, who would thus be forced, not to "shut up," but to remain with his mouth wide open until the dislocation of his jaw could be reduced. I have been told—I have never tried it myself—that a movement of like kind made with the hand, or with a pair of tongs, will generally produce the effect. And some of you may now be experiencing that the mental suggestion I have given is strongly exciting a disposition to the act, which is only to be restrained by a determinate effort of will.

Notwithstanding the familiarity of these facts, I regard them as having a very striking significance.

In the first place, they show the origination of the act to arise out of the primary organization of the nerve-center of the normal respiratory movements, in virtue of which this occasional exaggeration of them is called forth automatically, so as to obtain a more thorough aëration of the blood that circulates through it; and of this we have the best evidence in the fact that yawning-fits are very frequent in infants and young children, who have no motive for suppressing the tendency. But the centric predisposition to the act may not be strong enough to call it forth spontaneously, and may yet be sufficient to give effect to some external stimulus; and thus we see that, under such circumstances, either the sight or sound of the act in another, or the mental suggestion of it (such as I myself feel at this moment), calls forth a tendency to it. And even when, the blood being thoroughly aërated, the centric predisposition is wanting, a repetition of such stimulus and the direction of the attention to it will often prove almost irresistible.* Lastly, we have here, as in many other cases of automatism, an example of the controlling power of the will when exerted in opposition to the respiratory impulse; for, when we have a strong reason to wish to suppress a yawn, we can generally do so by put-

ting the will in force through the cerebrum, so as to antagonize the automatic mechanism.

I have now completed that general survey of the automatism of the human body which it has been my object to place before you, and in the next lecture I shall proceed to that of our mental action.

Original Communications.

MEDICAL ETHICS AND ETIQUETTE.

COMMENTARIES ON THE NATIONAL CODE OF ETHICS.

By AUSTIN FLINT, M. D.

Fourth Article.

OF THE DUTIES OF PHYSICIANS TO EACH OTHER AND TO THE PROFESSION AT LARGE.

ART. I.—*Duties for the Support of Professional Character.*

SECTION 1. Every individual, on entering the profession, as he becomes thereby entitled to all its privileges and immunities, incurs an obligation to exert his best abilities to maintain its dignity and honor, to exalt its standing, and to extend the bounds of its usefulness. He should, therefore, observe strictly such laws as are instituted for the government of its members; should avoid all contumelious and sarcastic remarks relative to the faculty as a body; and, while by unwearied diligence he resorts to every honorable means of enriching the science, he should entertain a due respect for his seniors, who have, by their labors, brought it to the elevated condition in which he finds it.

SECTION 2. There is no profession from the members of which greater purity of character and a higher standard of moral excellence are required than the medical; and to attain such eminence is a duty every physician owes alike to his profession and to his patients. It is due to the latter, as without it he can not command their respect and confidence, and to both, because no scientific attainments can compensate for want of correct moral principles. It is also incumbent upon the faculty to be temperate in all things, for the practice of physic requires the unremitting exercise of a clear and vigorous understanding; and, on emergencies, for which no professional man should be unprepared, a steady hand, an acute eye, and an unclouded head may be essential to the well-being, and even to the life, of a fellow-creature.

SECTION 3. It is derogatory to the dignity of the profession to resort to public advertisements, or private cards, or handbills, inviting the attention of individuals affected with particular diseases—publicly offering advice and medicine to the poor gratis, or promising radical cures; or to publish cases and operations in the daily prints, or suffer such publications to be made; to invite laymen to be present at operations, to boast of cures and remedies, to adduce certificates of skill and success, or to perform any other similar acts. These are the ordinary practices of empirics, and are highly reprehensible in a regular physician.

SECTION 4. Equally derogatory to professional character is it for a physician to hold a patent for any surgical instrument or medicine; or to dispense a secret *nostrum*, whether it be the composition or exclusive property of himself or of others. For, if such *nostrum* be of real efficacy, any concealment regarding it is inconsistent with beneficence and professional liberality;

* The lower jaw is often depressed in yawning farther than it can be by voluntary effort; so that, when I have suggested a yawn to myself by a voluntary gape, I have found the gape extended involuntarily.

and if mystery alone give it value and importance, such craft implies either disgraceful ignorance or fraudulent avarice. It is also reprehensible for physicians to give certificates attesting the efficacy of patent or secret medicines, or in any way to promote the use of them.

The late Alexander H. Stevens, in his acknowledgment of the honor of an election to the presidency of the American Medical Association, at its first annual meeting in 1848, spoke of the profession of medicine in the following terms: "Our profession, gentlemen, is the link that unites Science and Philanthropy. It is one of the strongest ligaments that binds together the elements of society. It teaches the rich their dependence, and elevates the poor to a sense of the innate dignity of their nature. Its aim is to add to the comfort and duration of human life. In a country where population is not crowding on the means of subsistence, and where every individual has the largest opportunity of promoting his own happiness and of perpetuating it in his posterity, the medical profession, entirely philanthropic in its objects, more intimately connected with the pursuits of science than the other learned professions, and not overshadowed by an hereditary aristocracy, enjoys pre-eminently a high social position, and, for all legitimate objects, a commensurate influence." Eulogiums equally glowing, in view of its beneficent objects, have come from speakers and writers not of the medical profession. It is not a small thing to belong to a profession so much honored, and plainly it is the duty of its members to do nothing to impair, but everything to sustain and promote, its honorable character. It may be said that the sentiments expressed in relation to the "duties for the support of professional character," contained in the two first sections under this head, are mere truisms and platitudes. This may be said with regard to any collection of ethical principles for the regulation of human conduct. Experience shows the importance of the embodiment in language of moral principles pertaining to other of the relations of life, and there is reason to believe that this portion of the code has had not an inconsiderable influence upon the character of the profession by inciting its members to become worthy of it, and to render it still more worthy of the estimation in which it is generally held by the public.

There can be no difference of opinion in the minds of worthy physicians as to the acts which in the third section of this article are specified as derogatory to the dignity of the profession. But the propriety of the interdiction of these acts by the code is not always appreciated by the public. As a reason for their being interdicted as "highly reprehensible in a regular physician," it suffices to say that "they are the ordinary practices of empirics." The public should understand that these practices are criteria of irregular or unworthy practitioners. With this understanding, if persons consent to be influenced by such acts, the responsibility for consequences lies with themselves. The credulity in regard to therapeutics which is inherent in the minds of many will doubtless always afford encouragement for a continuance of the various meretricious methods of obtaining credit for superior medical or surgical skill.

There are certain conventional rules, differing in differ-

ent places, which come under the head of etiquette rather than ethics. In the city of New York it would be deemed unbecoming to insert a card with residence and office hours, or a notice of removal, in a medical journal, and still more in a newspaper or any non-medical periodical. But in some other cities such notices in a medical journal are not looked upon as improper, and in some parts of the country even advertisements in newspapers by physicians, stating that they are candidates for practice, are not objected to. In Paris a professional door-plate is a deviation from propriety. In New York a door-plate or sign, modest in its proportions as in other regards, is the rule. But in some places the traditional "doctor's shingle" is a board which, in size and conspicuousness, would answer for a drug-shop, with, perhaps, an arrangement for illumination at night. In these and other matters falling in the category of conventional rules, it is, to say the least, not in good taste for any one to go beyond the limits which custom defines.

The grounds for the injunction not to patent remedies or surgical instruments, and not to dispense secret nostrums, are not always appreciated by the public. Some appear to think that it is dictated by jealousy or professional prejudice. The reasons are concisely but clearly stated in the code. Imagine Jenner to have applied for a patent giving exclusive property in vaccination, or keeping it a secret! How different would the names of those identified with the discovery and introduction of anæsthesia in surgical and medical practice appear in history had the attempt not been made to withhold from the profession and the public the agent employed, and to secure a proprietary interest therein! Here, as in all other instances, the restrictions of the code of ethics have reference to the welfare of the community, and not to the selfish interests of the medical profession.

ART. II.—*Professional Services of Physicians to each other.*

SECTION 1. All practitioners of medicine, their wives, and their children while under the paternal care, are entitled to the gratuitous services of any one or more of the faculty residing near them, whose assistance may be desired. A physician afflicted with disease is usually an incompetent judge of his own case; and the natural anxiety and solicitude which he experiences at the sickness of a wife, a child, or any one who, by the ties of consanguinity, is rendered peculiarly dear to him, tend to obscure his judgment, and produce timidity and irresolution in his practice. Under such circumstances, medical men are peculiarly dependent upon each other, and kind offices and professional aid should always be cheerfully and gratuitously afforded. Visits ought not, however, to be obtruded officiously, as such unasked civility may give rise to embarrassment, or interfere with that choice on which confidence depends. But if a distant member of the faculty, whose circumstances are affluent, request attendance, and an honorarium be offered, it should not be declined; for no pecuniary obligation ought to be imposed which the party receiving it would wish not to incur.

Proper delicacy as regards visiting their brethren in sickness is not always observed by medical men. From the best of motives, the professional friends and neighbors of a sick physician are apt to call upon him, inquire into his case, proffering their opinions and advice, without any concert between them, and the result is that a medical patient

may receive no systematic treatment; he is more poorly cared for in this respect than the poorest of non-medical patients. He often can not, without much embarrassment, exercise the privilege of the latter in selecting the advisers whom he would prefer. He should not be deprived of this privilege, and the greatest care should be taken to secure it for him. Except in cases where close intimacy dictates a deviation from the rule, a physician should not ask to see another physician in illness until requested to do so. The manifestation of interest and sympathy should be limited to kind messages and inquiries through others. It is as important to a physician who is sick as to others, to have a regularly selected physician in attendance, and consultations, if desired, should be had in the same way as in other cases.

Naturally and properly, medical services rendered to members of the profession should be gratuitous. The rule with regard to an honorarium, however, is a sound one in this application: namely, one has no right to impose a pecuniary obligation when it is distinctly against the wishes of the party receiving the services. This rule is applicable here as in other cases. A request to present a bill for services, however, should never be made. Such a request implies an expectation that it will not be complied with. Any pecuniary acknowledgment by a member of the profession for medical services should be made strictly as an honorarium.

ART. III.—*Of the Duties of Physicians as respects Vicarious Offices.*

SECTION 1. The affairs of life, the pursuit of health, and the various accidents and contingencies to which a medical man is peculiarly exposed, sometimes require him temporarily to withdraw from his duties to his patients, and to request some of his professional brethren to officiate for him. Compliance with this request is an act of courtesy, which should always be performed with the utmost consideration for the interest and character of the family physician, and, when exercised for a short period, all the pecuniary obligations for such service should be awarded to him. But if a member of the profession neglect his business in quest of pleasure and amusement, he can not be considered as entitled to the advantages of the frequent and long-continued exercise of this fraternal courtesy without awarding to the physician who officiates the fees arising from the discharge of his professional duties.

In obstetrical and important surgical cases, which give rise to unusual fatigue, anxiety, and responsibility, it is just that the fees accruing therefrom should be awarded to the physician who officiates.

The code of ethics defines the line of conduct in many instances of which it may be said that a proper courtesy and sense of honor should suffice without formal ethical rules. Assuming that an adequate degree of courtesy and sense of honor belong to members of the medical profession in general, to assume this for all members would be to claim for medicine, in a moral point of view, a position far above that of any other pursuit. Ethical rules, therefore, are needed for a greater or less number of physicians. But, irrespective of any question of moral delinquency, rules are useful by indicating precisely what is to be done under certain circumstances, thus preventing embarrassment and saving the

trouble of discussion in particular instances. It is to some extent a popular impression that the feelings of physicians toward each other are rather repellent than attractive. This impression is groundless. There is no class of men among whom fraternal sentiments prevail more than among practitioners of medicine. Personal antipathies from local jealousies, and, occasionally, incident to differences in opinion concerning questions which are considered as involving important interests of the profession, do not invalidate the correctness of this statement. Requests for vicarious offices, as well as other services for professional brethren, are usually cheerfully complied with.

Vicarious offices offer an opportunity for one deficient in a proper sense of honor to undermine the confidence of patients in their physicians. This may be done, not openly, but insidiously, by questions, expressions of surprise, over-assiduous attentions, etc. It will do much toward neutralizing such violations of honor if the public be made acquainted with the article of the code which relates to these offices. Patients will be led to understand the motive which prompts such dishonorable efforts, and, so far from accomplishing the objects, they will justly react upon unworthy members who act in opposition to the spirit of the code. It sometimes happens that a patient placed under the care, temporarily, of a practitioner, prefers that the substitute should continue permanently in charge. A patient may express a wish to that effect from a feeling that it is an act of courtesy to do so, at the same time, perhaps, being anxious that the family physician should resume his services. In order to avoid all difficulties, the physician who has performed vicarious offices in any case should relinquish the case, as soon as these offices are no longer needed, into the hands of the physician for whom he has acted, without any explanation or discussion with the patient or friends. If requested to remain in charge, he should positively decline. The family physician, after having been reinstated, is then, of course, free to act in conjunction with the wishes of the patient and friends, as regards the continued attendance of his substitute, either in consultation or in charge of the case.

The rules in regard to fees being clearly stated, there need be no embarrassment nor discussion on this score in particular cases.

ART. IV.—*Of the Duties of Physicians in Regard to Consultations.*

SECTION 1. A regular medical education furnishes the only presumptive evidence of professional abilities and acquirements, and ought to be the only acknowledged right of an individual to the exercise and honors of his profession. Nevertheless, as in consultations the good of the patient is the sole object in view, and this is often dependent on personal confidence, no intelligent regular practitioner, who has a license to practice from some medical board of known and acknowledged respectability, recognized by this association, and who is in good moral and professional standing in the place in which he resides, should be fastidiously excluded from fellowship, or his aid refused in consultation, when it is requested by the patient. But no one can be considered as a regular practitioner or a fit associate in consultation whose practice is based on an exclusive dogma, to the rejection of the accumulated experience of the profession, and

of the aids actually furnished by anatomy, physiology, pathology, and organic chemistry.

The foregoing section has of late been made the subject of much discussion. Of the entire code this section alone has occasioned dissension. The writer of these remarks is one of many who think that the code is here open to objection, not, however, in spirit or intent, but in phraseology. The last sentence is the part concerning which an objection may fairly be raised. At the time when the code was adopted by the American Medical Association, the irregular practitioners, so-called, were, for the most part, uneducated men, whose practice was not only based on an exclusive dogma, but, professedly, to the "rejection of the accumulated experience of the profession, and of the aids actually furnished by anatomy, physiology, pathology, and organic chemistry." They were "steam doctors, or Thomsonians," "botanical or herb doctors," "eclectics," and the like. A system of practice based on the dogmas of Hahnemann had not then acquired a hold on popular favor. A considerable number of those who became homœopathic practitioners, as they are termed, were from the ranks of the medical profession, and had received a regular medical education. Since the adoption of the code, this system has obtained a legal recognition. It has its societies, colleges, and journals. The homœopathic practitioners are an organized class, distinct from the regular profession. They are candidates for practice on the ground of a radical distinction in their therapeutical system, and it is on this ground that patients elect their services. Meanwhile, other systems in antagonism to the regular profession are comparatively insignificant as regards the number of practitioners and of patients.

It is fair to conclude that the framers of the code had no feeling of illiberality, and no intention to interfere with the practice of medicine, under any circumstances, in the cause of humanity. The code declares explicitly that "in consultations the good of the patient is the sole object in view," and enjoins against declining consultations on the score of fastidiousness. The restrictions of the code are in no wise inconsistent with the demands of humanity in cases of emergency. In saying that certain practitioners are not to be considered as regular or fit associates in consultation, it is neither said nor implied that a physician should not see a patient even with these practitioners when humanity requires him to do so. The tenor and spirit of the code throughout are opposed to any act of professional inhumanity. Moreover, in particular cases, the physician must be the judge of his duty in this regard. Practically, there need be no difficulty in deciding how to obey the dictates of humanity, and, at the same time, conform to the code, under the guidance of a conscientious regard for both. The objectionable point in the code is that which makes "a practice based on an exclusive dogma" the ground of a refusal to meet practitioners in consultation. This is not a valid objection. Any physician has a right either to originate or adopt an exclusive dogma, however irrational or absurd it may be. Dogmas have prevailed more or less in the past history of medicine. If in a consultation there be lack of agreement respecting either diagnosis or treatment, the code indicates in another article precisely the course

to be pursued. The true ground for refusing fellowship in consultations, as in other respects, is a name and an organization distinct from and opposed to the medical profession. Whenever practitioners assume a distinctive appellation, thereby assuming to represent an essentially distinct system of practice, taking an attitude of antagonism to the regular profession, seeking popular favor on the ground that they belong to a "new school" based on truth and productive of good, whereas the regular profession belong to an "old school" based on error and productive of harm—how can there be fellowship either in consultations or in other respects? If they who thus assume an attitude of antagonism to the medical profession conscientiously hold to the distinctive tenets which, as they profess, are the ground of their antagonism, how can they consistently desire to meet members of the latter in consultation, and, with opposing views of therapeutics, how could such consultations accomplish "the sole object in view," namely, "the good of the patient"? If, as is asserted, homœopathy has practically been abandoned by most of those who practice under this name, or so modified that the modes of treatment in cases of disease are not essentially different from those of the regular profession, why retain the separate organization and the name, which imply to the public a radical therapeutic distinction? If the assertion be true, the name and the organization being retained, professional fellowship is rendered thereby immoral on the ground of complicity in a fraud upon the public. It is to be hoped that the body from which the code emanated—namely, the American Medical Association—will adopt such modifications in the phraseology of this section as will place restrictions on consultation, not on the ground of doctrines or forms of belief, but on separation from and avowed antagonism to the medical profession. Under no circumstances can there consistently be fellowship with any class of practitioners who adopt a distinctive title as a trade-mark, and who are banded in order to impair the confidence of the public in the medical profession.* To take the ground that, because the Legislature of a State has placed on an equal legal footing different

* The action of the British Medical Association is in accordance with this view. The two following resolutions are quoted from a series adopted by that body:

"Resolved, That homœopathic practitioners, through the press, the platform, and the pulpit, have endeavored to heap contempt upon the practice of medicine and surgery, as followed by members of this association, and by the profession at large.

"Resolved, That for these reasons it is derogatory to the honor of members of this association to hold any kind of professional intercourse with homœopathic practitioners."—*Vide* "British Medical Journal," June 10, 1882.

In these resolutions the repudiation of homœopathic practitioners is based on their attitude toward the practice of medicine as followed by the profession at large, and not on the dogmas which they profess, although in another resolution the latter are characterized as "utterly opposed to science and common sense, as well as completely at variance with the experience of the medical profession." Another resolution is, "That there are three classes of practitioners who ought not to be members of this association [British Medical]: 1. Real homœopathic practitioners; 2. Those who practice homœopathy in combination with other systems of treatment; and 3. Those who under various pretences meet in consultation, or hold professional intercourse with those who practice homœopathy."

classes of practitioners, those of one class can not refuse to consult with those of another class, is as absurd as to assert that a Jewish rabbi is bound to exchange pulpits with Christian ministers, or the latter to affiliate with Mormon elders for the reason that, in the eye of the law, in this country, all religious denominations have equal rights. The people demand of their legislators the enactment of laws for the protection of life, liberty, and property, but they do not look to them for the institution or the interpretation of codes of ethics. If homœopathic practitioners abandon the organization and the name, provided they have received a "regular medical education," there need be no restrictions on consultations other than those belonging to other portions of the code, whatever therapeutical doctrines they may hold.

There are many, not of the medical profession, who have been led to believe that its members are bound to uphold antiquated traditional doctrines. Many seem to think that the "old-school practitioners," as they are derisively called, are committed to a system of practice expressed by the term allopathy. All medical men know that, so far from these popular notions being true, they are quite the reverse of truth. The term allopathy originated with Hahnemann, and was intended to denote a doctrine the opposite to homœopathy. It is simply a term of reproach. It has no pertinency as applied to the medical profession. As is well known by all conversant with the history of medicine, doctrines and practice undergo changes in proportion to the advancement in the several branches of medical knowledge and accumulated experience. The tendency, certainly, within the last half century has been to adopt new views too readily, not heeding sufficiently the restraint of a rational conservatism. It is desirable that the public should understand that the medical profession is in no sense a sect, as implied by the name allopathy. It allows the utmost latitude of opinion. The sectarians in medicine are those who have professed faith in tenets to which they are bound, at least ostensibly, to adhere. Opinions held by members of the regular profession, however at variance with those generally entertained, and however absurd, may fairly give rise to criticism and ridicule, but they can not be made occasions for professional discipline. With a proper understanding of the reasons which actuate members of the medical profession in declining to meet irregular practitioners, their action can not be attributed to either jealousy or prejudice. Their action, indeed, may involve the sacrifice of personal interests, and it concerns the public welfare not less than the dignity and honor of the profession. Let the statement be repeated, until no longer necessary for the information of the public, that there are no allopathic practitioners of medicine. A regular member of the medical profession should never even tacitly admit the propriety of this designation. Let it be understood by the public, as well as by the profession, that there is no necessity for a schismatic separation from the regular profession on account of any peculiarity of doctrine. Such a separation is not from necessity, but for the purpose of obtaining practice. That it is successful for that end, observation shows. Why it is so is a question in psychology, the discussion of which would be out of place here.

SECTION 2. In consultations, no rivalry or jealousy should be indulged; candor, probity, and all due respect should be exercised toward the physician having charge of the case.

SECTION 7. All discussions in consultation should be held as secret and confidential. Neither by words nor manner should any of the parties to a consultation assert or insinuate that any part of the treatment pursued did not receive his assent. The responsibility must be equally divided between the medical attendants—they must equally share the credit of success as well as the blame of failure.

SECTION 10. A physician who is called upon to consult should observe the most honorable and scrupulous regard for the character and standing of the practitioner in attendance; the practice of the latter, if necessary, should be justified as far as it can be consistently with a conscientious regard for truth, and no hint or insinuation should be thrown out which could impair the confidence reposed in him, or affect his reputation. The consulting physician should also carefully refrain from any of those extraordinary attentions or assiduities which are too often practiced by the dishonest for the base purpose of gaining applause, or ingratiating themselves into the favor of families and individuals.

These three sections of Article IV, although not occurring consecutively in the code, are here collocated because they contain ethical rules which have reference to the relations of consulting with attending physicians.

Reference may be made again to the popular errors concerning consultations which prevail to some extent among members of the medical profession. One of these errors is that a consultation, when requested by patients or their friends, implies, as a matter of course, dissatisfaction with the services of the physician in attendance. The request should never be considered in that light. Connected with this error is another, namely, that it is the office of a consulting physician to pronounce a judicial decision respecting the treatment which has been pursued, or which is being pursued, by the physician with whom he is requested to consult. This is not the office of a consulting physician. He should be reserved in forming an opinion as to past treatment, inasmuch as the case was not under his observation, and it would be unfair to judge of circumstances which he had not observed; hence, an opinion unfavorable to the past treatment, if indiscreetly formed and still more indiscreetly uttered to any but the attending physician, might do the latter great injustice. Whatever judgment he may form respecting the treatment which is being pursued, is for the physician in attendance, and for no one else. Still another error is to assume that a physician in consultation has more knowledge or skill than the attending physician, and that, consequently, the latter is to be subordinate to the former in the management of a case. A consulting physician may or may not be the superior in knowledge or skill. Not infrequently a physician is called in consultation for the reason that he has given special attention to the disease from which the patient is suffering; but, exclusive of these instances, a consultation should by no means imply, as a matter of course, a superiority of the consulting physician. These errors, prevailing somewhat in the profession, have a much larger popular prevalence. It is owing to their prevalence that medical consultations are not more frequent. Patients and their friends often hesitate to pro-

pose a consultation from a desire not to imply want of confidence in the attending physician. The physician is often reluctant to propose it lest the proposal be considered as a confession of deficient self-confidence, or because he is distrustful of the one who is likely to be called in consultation, and who is, perhaps, his rival or competitor in practice. Let these errors in the profession and in the public mind be removed, and consultations will be much more frequent than they now are. So far as the physician is concerned, a consultation with those whom he can conscientiously meet on terms of fellowship, and in whose honor he can trust, is a source of much relief and comfort. Aside from any assistance which he may derive from it, the responsibility of the case is divided, and his hands are strengthened by the increased confidence of those most interested. Moreover, rightly conducted consultations tend to enhance popular regard for the medical profession; hence, it is much to be desired that the public should have correct ideas on this subject.

The true ground for a medical consultation is the benefit which may be derived by bringing the judgment of two or more minds to bear upon a case. There are few things in human life which are generally considered more precious than health, and there are few calamities which, in the minds of most persons, it is more desirable to postpone than death. It is, therefore, a singular anomaly that conferences on matters of far less importance than those relating to health and life, such as business interests, politics, social life, etc., are more frequent than medical consultations. In cases of disease, these are frequently delayed until the condition of the patient is hopeless, and when no real benefit can possibly be derived from them. Not only should they be had earlier, but they should not be limited to cases in which there is more or less immediate danger. The fact that they are apt to be thus limited renders them a source of apprehension to patients, and, for this reason, they are sometimes delayed.

The public should understand it to be a point of honor with honorable members of the profession to hold everything which takes place in consultation as secret and confidential. It should be understood that it is improper to ask such questions of the attending physician as "What did the physician in consultation say?" "Did he make any change in the treatment?" etc.; or of the consulting physician, "Does the attending physician understand the case?" "Has he treated it properly?" etc. Sometimes friends of a patient, who are not members of the medical profession, wish to be present at a consultation. This is never allowable. As it may be a matter of delicacy for the attending physician to request them to retire, this should, if omitted by him, always be done by the physician in consultation. A consulting physician is placed in a most constrained situation if, as is sometimes done, the physician in attendance requests friends of the patient to be present. The request should not be acceded to. If the attending physician ask of the consulting physician, in the presence of patients or friends, if there be agreement, the answer should be frank and positive. The consulting physician may sometimes make this statement of his own accord, but it is gratuitous, and may be offensive if made without any intimation of a

want of confidence in the attending physician, or in an assuming, patronizing manner. Unless there be a difference of opinion, which is provided for in another section of this article of the code, an imperative duty of a consulting physician is to sustain and promote confidence in the attending physician. In this way, as well as by any suggestions which he may have made in relation to treatment, he contributes to the "good of the patient."

SECTION 3. In consultations, the attending physician should be the first to propose the necessary questions to the sick, after which the consulting physician should have the opportunity to make such further inquiries of the patient as may be necessary to satisfy him of the true character of the case. Both physicians should then retire to a private place for deliberation; and the one first in attendance should communicate the directions agreed upon to the patient or his friends, as well as any opinions which it may be thought proper to express. But no statement or discussion of it should take place before the patient or his friends, except in the presence of all the faculty attending, and by their common consent; and no *opinions* or *prognostications* should be delivered which are not the result of previous deliberation and concurrence.

SECTION 4. In consultations, the physician in attendance should deliver his opinion first; and, when there are several consulting, they should deliver their opinions in the order in which they have been called in. No decision, however, should restrain the attending physician from making such variation in the mode of treatment as any subsequent unexpected change in the character of the case may demand. But such variation and the reasons for it ought to be carefully detailed at the next meeting in consultation. The same privilege belongs also to the consulting physician if he is sent for in an emergency, when the regular attendant is out of the way, and similar explanations must be made by him at the next consultation.

SECTION 5. The utmost punctuality should be observed in the visits of physicians when they are to hold consultation together, and this is generally practicable, for society has been considerate enough to allow the plea of a professional engagement to take precedence of all others, and to be an ample reason for the relinquishment of any present occupation. But, as professional engagements may sometimes interfere, and delay one of the parties, the physician who first arrives should wait for his associate a reasonable period, after which the consultation should be considered as postponed to a new appointment. If it be the attending physician who is present, he will, of course, see the patient and prescribe; but, if it be the consulting one, he should retire, except in case of emergency, or when he has been called from a considerable distance, in which latter case he may examine the patient, and give his opinion in *writing*, and *under seal*, to be delivered to his associate.

The above rules relate to etiquette in consultations, as distinct from ethics. Of less importance than the latter, they are, nevertheless, important. As it is an essential part of the office of a physician in consultation to co-operate in all regards with the physician in attendance, and to promote the confidence of the patient, he should take pains to treat the latter with becoming consideration and respect. The physician in consultation is supposed to be present at the instance of the physician in attendance; he should certainly decline to be present if not with the full consent of the latter. He is, in the first place, to listen to a recital of the history of the case by the attending physician. This

may be given in the presence of the patient, or not, as the attending physician may deem advisable. Going into the sick-chamber, the attending physician should take precedence, and, if there be more than one physician in consultation, they should follow in the order in which they have been invited to consult in the case. Following this rule without any formal demonstrations will spare occasions for observers to remark how elaborately polite doctors are to each other in consultations. The attending physician should always be the first to approach the bedside and examine the patient, no matter how intimate may be the friendly relations of the latter to the physician in consultation. It is a gross breach of propriety for a physician in consultation to go to the bedside at once and proceed to an examination, as if there were no attending physician in the case. He is to await a request of the attending physician to examine the patient. His examination should, of course, be sufficiently extended, but not beyond the data requisite for forming his opinion. Asking superfluous or irrelevant questions and carrying the examination into needless details belong in the category of "those extraordinary attentions or assiduities which are too often practiced by the dishonest for the base purpose of gaining applause, or ingratiating themselves into the favor of families and individuals." On the other hand, a very cursory examination may give the impression that the consulting physician is able to see at a glance what the attending physician has failed to comprehend, perhaps after much painstaking investigation. Whatever may be the social relations of the consulting physician to the patient, it is but decorous that in the sick-room he should be reserved in both manner and conversation. It is a breach of propriety to be particularly demonstrative or loquacious. To the attending physician belongs the most prominent rôle in the sick-room, without regard to differences in age, experience, or position. Answers to questions by the patient or surrounding friends, addressed to the consulting physician, prior to the consultation, as to the nature of the malady, the gravity of the case, etc., are to be courteously waived.

The attending physician in the consultation-room should have the opportunity of first stating his views concerning the case, if he have not done so already in the recital of the history. He may, however, desire to waive this privilege, and request the views of the consulting physician before stating his own. If he have full confidence in the honor of the physician whom he meets in consultation, he will be unreserved, stating frankly his difficulties and doubts, if he have had any, in the diagnosis and management of the case. The consulting physician, if he find occasion to differ in opinion, should always give due consideration to the fact that the attending physician has had a better opportunity for the study of the case than he can have at a single visit. Allowance is also to be made for changes which are liable to take place in the course of a disease. It is needless to say that any difference of opinion should be stated with respectful courtesy. It is his duty to state any difference of opinion, and he need not feel undue delicacy in so doing, knowing, as he should know, that the difference, if it be not irreconcilable as regards the bearing on the treatment, will never be mentioned by himself outside of the consultation-

room. There is a good reason, when two or more consulting physicians are present, for the attending physician to call first for the views of the youngest, and afterward in the order of juniority. The reason is that the younger will be likely to express his views with more freedom before than after the views of his seniors have been expressed. Moreover, if there be difference of views, it is more decorous for the dissent to come from the older than from the younger of those in consultation. In the great majority of the instances in which there are differences in opinion they relate to points in pathology or etiology, and not to the diagnosis or treatment. There may be wide divergencies of opinion concerning the interpretation of the facts in a case, with complete agreement in respect of the practical points. As regards the latter, in most of the instances in which different views are expressed, they relate to the means of accomplishing certain objects, there being unanimity as regards these. Consultations should not be unduly protracted; if so, patients or their friends are apt to imagine that there is either lack of agreement or some unusual obscurity in the case.

It is the office of the attending physician to communicate to patients or their friends the result of a consultation as regards the nature of the case, the prognosis, and the treatment. He may, however, prefer that this be done by a physician in consultation. If done by the attending physician, it is generally best for the consulting physician or physicians to be present; otherwise, suspicious minds may conjecture that the views of the latter have not been fully or correctly stated. It should be considered a matter of courtesy for the attending physician to ask the consulting physician or physicians if he have stated accurately the result of the consultation, and to invite questions addressed to the latter. Often patients or their friends are not satisfied without some conversation with physicians in consultation. The conversations, however, should always take place in the presence of the attending physician, except the latter desires it to be otherwise. If there exist that *entente cordiale* between the consulting and the attending physician which is desirable in consultations, the latter may request the former to converse with a patient or his friends by himself. Assurances and encouragement may in this way sometimes be more effectual than when given more formally by either when both are present. It should be considered as an insult, except that no improper reflection is intended, when the friends of a patient, after a consultation, seek a private interview with a consulting physician, in order to ascertain whether he really entertained the views which he had expressed or to which he had ostensibly assented. A certain measure of resentment, as well as reserve, under such circumstances, tends to impress upon the public the ethical rule of secrecy as regards the details of medical consultations.

Unessential changes in the treatment of a case should not directly follow a consultation. Inasmuch as the fact that the changes are not essential is not likely to be appreciated, they are apt to be misinterpreted, to the prejudice of the attending physician. Whenever there is agreement as to the treatment which is being pursued, it should, of

course, be continued. It should by no means be considered that, as a matter of course, other or additional therapeutical measures are to be suggested by a physician in consultation. A consulting physician sometimes has unmerited credit in consequence of some trivial modification of the treatment, which is attributed to him. Simple justice to the attending physician dictates great delicacy and circumspection in the suggestion of measures of treatment which are not of immediate importance. It is needless to add that suggestions made for the purpose of giving the impression of a change in treatment are in the highest degree dishonorable.

It may seem a small matter to enjoin punctuality in a code of ethics, but, in reality, the matter is of much importance. Failure to keep an appointment, or tardiness, in the first place, is apt to occasion annoyance to a patient, who may be awaiting the consultation with great anxiety. In the second place, the detention of the one who is punctual may upset all his arrangements for the remainder of the day. There are few engagements with reference to which a prompt fulfillment is of greater importance than medical consultations and other professional visits on the sick. It must, however, sometimes happen that the emergencies of medical practice prevent the fulfillment of engagements. Whenever practicable, the parties interested should be seasonably notified of the inability to fulfill them. On the other hand, it is a breach of etiquette for a consulting physician to arrive at the house of a patient much before the time appointed for a consultation. This is not always easily avoided. If it so happen, he should invariably await the arrival of the attending physician without entering the sick-room; and he should decline to receive a history of the case until he can hear it from the lips of the physician in attendance. In observing these rules of etiquette, he avoids the suspicion of unprofessional conduct by taking a dishonorable advantage of the absence of the physician in charge. Here, as in other instances, the rules by which members of the medical profession are governed should be clearly stated, in order to endeavor to popularize them, and do away with the remark, so often made by those who are not members of the profession, to the effect that they are not acquainted with the requirements of medical etiquette.

How long shall a consulting physician wait for the arrival of an attending physician? The answer to this question will differ in different places. It is desirable that in each place there be some conventional rule in relation to the matter. In the city of New York, about fifteen minutes is considered to be a proper period. At the end of this period, the physician is to decide whether it is advisable to leave and arrange for another appointment, or to see the patient, and leave his views in a sealed note addressed to the attending physician. His decision must depend on the urgency of the case and other circumstances. In everything relating to rules of ethics and etiquette, the dictates of humanity are to be considered as paramount. Whenever the condition of a patient is such as to require immediate measures for relief, a consulting physician, in the absence of the attending physician, is to proceed as if the case were in his charge, giving an account of what he has done, either in a sealed note or subsequently by word of

mouth, to the attending physician. It is superfluous to say that, under these circumstances, the character and the interests of the attending physician are to be carefully and tenderly considered.

SOME OF THE EFFECTS OF NASAL POLYPI IN CHILDREN.*

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THE first case was that of a boy, now about seven years of age, whose history I have known, in part at least, for several years past. I first saw the boy when he was two years and a half old, and was told that he had had a number of attacks of catarrh and bronchitis, and that he had suffered from very severe attacks of dyspnoea, generally coming on at night—attacks which behaved exactly as asthma does in the adult. During the next six or eight months I saw the child a number of times, sometimes when suffering from a well-marked attack of asthma. There were symptoms of an old peribronchitis and emphysema, the latter not very extensive, mostly on the left side and anteriorly. There was very moderate dulness over the larger portion of the right lung, with generally diminished respiration, and also with what was believed to be dilatation of the large bronchus. The child was treated for some time as one would treat an adult for asthma. Considerable improvement followed the administration of the iodide of potassium, and during severe attacks morphine and croton chloral were employed. As a rule, the attacks were easily cut short, but would recur. Great improvement followed a visit to the country, and at the same time the iodide of iron and a little arsenic were administered. The family then moved to Europe, and for some time reported favorably concerning the child's condition; but afterward the attacks returned, and I have heard lately that an operation was performed upon the child's nose six months ago.

The other case, which I first saw about four months ago, was that of a child about three years old, with a similar history. The child had been well up to the end of the first year, when a severe attack of bronchitis set in, and probably interstitial pneumonia or peribronchitis existed. On examination, I found diminished respiration over the whole of both lungs, more marked anteriorly. There was a little emphysema, and the child suffered from quite severe attacks of asthma, usually coming on at night, lasting sometimes a few hours only, and at other times several days. Treatment had already been begun, the iodide of potassium having been given, and also, from time to time, expectorants were administered, and the child had been taken out a good deal. Under this treatment there was said to have been marked improvement. I thought there was hyperæmia about the pharynx, particularly on the left side and during an attack of asthma. The child was said to have suffered a good deal from nasal catarrh. The nostril was examined, and a polypus was found and removed. Another made its

* Being the substance of remarks made before the New York Obstetrical Society, February 20, 1883.

appearance, which was also removed about two months and a half ago. Only two paroxysms have occurred since the removal of the polypi, and these were of a mild type.

It seems to me that in the first case, also, the affection must have been due to the presence of a tumor, probably a nasal polypus, which had not been recognized until the child went to Europe, where an operation was performed for its removal. The second case offered no difficulty with regard to diagnosis of the case and its complication, as I had lately read of cases of asthma in the adult accompanied by or dependent upon the presence of nasal polypi. In a number of such cases removal of the polypi has been followed by complete or partial relief of the asthmatic attacks, and the question arises, What is the explanation of the relationship existing between the presence of the nasal polypi and the asthmatic attacks, if any such exists? It is known that the presence of any irritation of a mucous membrane will produce effects not only in the immediate neighborhood of the seat of the irritating body, but also at a distance. For example, a small polypus on the mucous membrane of the rectum in a child is capable, not only by its weight, but by its mere presence, of setting up an irritation both of the mucous membrane itself and of the submucous tissue. Not a small number of cases of prolapsus of the rectum are due to the presence of a polypus situated either upon the sphincter ani or higher up in the rectum, an œdematous effusion taking place, with thickening and relaxation of tissue, leading to prolapsus. It is a matter of every-day occurrence to meet with cases of chronic nasal catarrh or chronic pharyngeal catarrh wherever there is enlargement of the tonsils, whether congenital or acquired, and no method of treatment will prove effectual until the enlargement of the tonsils is relieved. Treatment directed to the condition of the tonsils alone often results in a cure of the nasal catarrh. When, therefore, we speak of a local irritation in such cases, we should not lose sight of the fact that we have to deal, not with a simple condition, but with a complicated one; that what we see is the result of reflex action, for in no other way can the dilatation of the blood-vessels and the over-secretion be explained. The subject of the relationship between asthma in the adult and the presence of nasal polypi was treated of monographically, about six months ago, by Dr. Bresgen in Volkmann's "Sammlung klinischer Vorträge."

[When Dr. Jacobi had related these cases at the meeting of the Obstetrical Society, and made the foregoing remarks, the President, Dr. C. C. Lee, spoke of having observed convulsive attacks in children, the cause of which was not apparent unless it was the presence of nasal polypi. Dr. Jacobi then continued as follows:] I have no doubt that the cases related by Dr. Lee were similar, physiologically speaking, to those which I have recited.

There is a fact with which we are all familiar, but which I will mention simply to give prominence to the part played by the nasal mucous membrane in the production of certain nervous symptoms. In chorea minor, which is absolutely local, and gives rise to twitchings of the face, of the eyelids, and of the shoulders, for example, and which is frequently succeeded by general chorea, the affection is due almost ex-

clusively to a local irritation of the mucous membrane, associated with chronic nasal pharyngeal catarrh. In a number of cases I have observed an aggravation of the choreic symptoms attending an acute exacerbation of the catarrh. Now, a relationship exists between the nasal mucous membrane and the nervous system which everybody will recognize, and which probably will offer a satisfactory explanation of at least part of these cases. In the first place, the trigeminus with all of its branches is subjected to direct or reflex irritation arising from the inflamed condition of the nasal mucous membrane. Secondly, the thickening of the mucous membrane in the narrow nasal passages of the child, and especially the presence of a polypus, seriously interferes with respiration, and the result is the accumulation of carbonic-acid gas in the brain, particularly about the respiratory center at the medulla oblongata. Thirdly, the lymphatic system of the nasal mucous membrane and that of the dura mater and the arachnoid membranes are in intimate relation with each other, which is so closed that they can be injected from either side. This fact is illustrated in the intimate relationship existing between the lymphatics on the two sides of the diaphragm, where it is frequently found that, as the lymphatics exhibit open stomata above and below, inflammation in the pleura above and of the peritonæum below go hand in hand. Thus it will be seen that there are at least three reasons why there may be an intimate connection between affections of the mucous membrane of the nose and cerebral affections.

LIGATURE OF THE COMMON CAROTID FOR ANEURYSM OF THE EXTERNAL CAROTID; RECOVERY.

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SURGEON TO ST. LUKE'S AND CHAMBERS STREET HOSPITALS, NEW YORK.

THE following case is reported as a contribution to the antiseptic ligation of large arteries. A recent collection of cases by Weljaminow ("Centralbl. für Chirurgie," No. 48, 1882) shows these gratifying results: Of forty-seven cases in which the artery was tied for various purposes, but one patient died. Six other fatal cases are included in the collection, but, as death resulted from other causes than the operation, they are not counted.

A muscular, healthy negro, aged twenty-six, was sent into my service at St. Luke's Hospital by Dr. E. L. Partridge, January 2, 1881. Seven months before, he strained his neck in lifting, and a month later noticed a tumor of the size of a hickory-nut on the left side of the neck under the jaw. This had increased steadily in size, and had been constantly painful. January 4th. A firm, rounded, pulsating tumor was found on the left side of the neck of the size of an orange, extending from the lobule of the ear downward in the direction of the sterno-mastoid to the middle of the thyroid cartilage, and forward as far as the anterior edge of the masseter. Pulsation expansile, and stopped by pressure on the common carotid below. A bruit was heard over its lower part only. It was but slightly movable, tender, and the skin over it was normal. There were no enlarged glands; the pupils were normal. The man complained of

constant dull headache, and pain on the left side of the face and neck. January 7th. The common carotid was ligated close above the anterior belly of the omo-hyoid with carbolized catgut under antiseptic precautions (spray). The ligature broke on tightening the first knot, and was replaced by another passing around the artery in the same place. Pulsation ceased; a drainage-tube was placed in the lower angle of the wound; silk sutures and Lister dressings were used.

After the effects of the ether had passed off (six hours later) the left pupil was contracted, the right normal, the tongue deviated to the right side, and there was slight loss of power in the right hand, while the face was drawn to the left side; speech was normal. These symptoms disappeared in a few hours. There was no more pain. Primary union took place. The drainage-tube was removed the eighth day, and the wound was completely closed on the twelfth day without suppuration. (Three Lister dressings.) The aneurysm was smaller and harder, and not tender. He was discharged on the fourteenth day. The tumor continued to shrink, and in three months could not be seen. At present, one year and nine months after the operation, the cicatrix is barely perceptible, and merely an indistinct hardness can be felt at the site of the tumor.

Book Notices.

A System of Human Anatomy, including its Medical and Surgical Relations. By HARRISON ALLEN, M. D., Professor of Physiology in the University of Pennsylvania, etc. Illustrated with three hundred and eighty figures on one hundred and nine plates . . . also upward of two hundred and fifty woodcuts in the text. Section III—Muscles and Fasciæ. Philadelphia: Henry C. Lea's Son & Co., 1883. 4to, pp. iv-243 to 334, inclusive. [Portfolio cover.]

THE favorable opinion which we expressed in our notice of Parts I and II of this work is sustained by a careful perusal of Part III. The aim and scope of the work in general have been explained before, so that the reviewer will confine himself exclusively to the section under consideration. It comprises a complete description of each muscle in the body, and, in addition, certain incorporated "remarks" which touch upon the points of clinical interest associated with the more important muscles. In this way a vast amount of research on the part of the author is shown, since case after case is referred to where the muscles of special regions have suffered from the effects of injuries of various kinds. In addition to the clinical matter incorporated, the abnormalities of origin and insertion are discussed, and the surgical relations of muscles and fasciæ are clearly stated when they exist. The use and nerve supply of each muscle are given separately—a plan admirably adapted for reference. In this section of the work, as in those which have previously appeared, the illustrations form an important part. We criticised some of the early drawings as poor, and we are glad to acknowledge that those of this section show improvement, although they are not yet equal to many hitherto published. They are large and distinct as a rule, but coarsely shaded and often out of proportion. A few only are fine and truly artistic. It seems to the reviewer that the incorporation of diagrammatic illustrations of the fasciæ would have added greatly to the value of the

work. It is hard for the general reader to form a proper conception of these structures from descriptive text alone, no matter how carefully worded and complete; while actual representations are difficult to interpret, and are, for that reason, generally omitted.

We are disappointed in the meagerness of cuts to illustrate the perinæum. We had hoped to see much originality in the presentation of this important part of the trunk, and to find drawings of the female perinæum as contrasted with that of the male. We should have been interested to see the author's conception of the fibers of the levator ani muscle, especially in the female; and drawings, made to show the iliac, obturator, rectovesical, and perineal fasciæ, would have been particularly welcome. As it is, the perinæum, with its important muscles and fasciæ, is disposed of in three pages, while the female perinæum is not separately considered. It is evident that the section under consideration must have been written before the appearance of some late monographs upon the anatomy of this region; and the author may well consider a complete revision of this chapter in a subsequent edition. It strikes us that the physiological department has again been slighted in the third section. A summary of the action of the separate groups of muscles upon the six principal joints, so tabulated as to make complicated movements understood, would have added to the value of the work. This has been done by several authors of late, and their views could be contrasted with benefit to all who will study a new anatomical treatise with interest. Again, the mechanism of deglutition, respiration, phonation, attitude, etc., properly belongs to the department of myology. As in all first editions, numerous errors of statement have been noticed, but these will creep into text in spite of the most extreme precautions.

Taken as a whole, the third section of this masterly work is entitled to praise of the highest order. It is only because the general excellence of the book is recognized that suggestions are offered which, in the reviewer's opinion, will add to its permanent value and conduce to its success.

Mittheilungen aus der ophthalmiatriischen Klinik in Tübingen.

Herausgegeben von Dr. ALBRECHT NAGEL, ordentlichem Professor der Augenheilkunde und Vorstande der ophthalmiatriischen Klinik an der Universität Tübingen. Erster Band. Tübingen: H. Laupp, 1882. Pp. v-234-118-131. [From B. Westermann & Co. Price, \$4.40.]

THIS first volume of papers, embodying the work done at the Tübingen Clinic by Professor Nagel and his corps of assistants, is a valuable contribution to ophthalmological science. It is divided into three parts, the first of which contains thirteen papers, some of which are of considerable scientific interest. The first paper is by Nagel, on the Optical Magnifying Power of Lenses and Simple Combinations of Lenses, with reference to the action of spectacles. From a large number of observations and experiments he deduces the following conclusions: 1. Convex glasses magnify, and concave glasses diminish the visual angle. 2. The increase by convex glasses diminishes with the increase of the focal distance, and increases with the refractive power of the lens. 3. The increase by convex glasses increases the greater the distance of the glass from the eye. 4. The increase by convex glasses increases with the distance of the object, as well as with the increase of the distance of the virtual image. The next paper, by Schliephake, gives the results of careful investigation into the effects of muscarine upon the eye. The third paper, by Bisinger, is an interesting discussion of the relations existing between accommodation and convergence of the visual lines. Then follow three short papers upon, 1st, Congenital Coloboma of the Eyelids; 2d, The Ophthalmoscopic

Appearances of Cilio-retinal Blood-vessels; and, 8d, Endothelial Melano-sarcoma of the Ciliary Body. Next comes a lengthy paper, by Schlegel, on the Use of Eserine in Glaucoma, and a short one, by Nagel, on the Ophthalmoscopic Appearances in Myopic Eyes. Two short papers, by Schleich, on the Absorption-Spectra of Cobalt-blue Glasses, and a Rapid Cure of Amaurosis with white discoloration of the optic nerves; and one by Rembold, on the Condition of the Pupil in Chloroform Narcosis, close this first part of the volume.

The second part contains but one paper, which is a long, interesting, valuable discussion of the movements of the pupil, and their significance in diseases of the central nervous system, by Rembold. It is divided into two sections, the first treating of the anatomy and physiology of the movements of the iris, their causation and conditions; the channels of innervation, oculo-motorius, optic, trigeminus, sympathetic, and peripheral sensory nerves, the posterior columns of the cord and the cerebral cortex. In addition, there are subsections upon the effect of light upon the pupil, the movements of the iris in accommodation, and the state of the pupil in sleep, agony, and death. The second section treats of the condition of the pupil in diseases of the central nervous system, including brain and spinal cord, with subsections upon spastic mydriasis and paralytic myosis. This second part of the volume is well worth perusal.

The third part is concerned almost entirely with myopia. The first paper is by Schleich, and is a Clinical, Statistical Contribution to the Doctrine of Myopia. The second paper is by Weiss, on the Anatomy of the Myopic Eye, and is divided into two parts. The first considers the anatomy of the slightly myopic eye, both macroscopically and microscopically. The second considers the anatomy of the highly myopic eye, with annular staphyloma, both macroscopically and microscopically.

The final paper is a short statistical notice by Nagel of the ophthalmic clinic at Tübingen.

All these papers are of interest, as embodying both a *résumé* of the work done by other writers, and also the results of original observations and experiments by the present authors. This first volume is a valuable contribution to ophthalmological literature, and it is to be hoped that the second volume may maintain the same high standard.

The Chamberlens and the Midwifery Forceps: Memorials of the Family, and an Essay on the Invention of the Instrument. By J. H. AVELING, M. D., F. S. A. London: J. & A. Churchill, 1882. Pp. x-231.

THE leading facts brought out in Dr. Aveling's dainty little book are: That in the year 1569 William Chamberlen, a Huguenot, emigrated from France to England, with his family, including a son named Peter; that this Peter Chamberlen invented the midwifery forceps; that another son of William, also called Peter (there being, therefore, two brothers of the same name, distinguished from each other as "the elder" and "the younger"), was the father of a third Peter, who was the first of the family to be admitted to the regular practice of medicine; that Hugh Chamberlen, senior, who was a son of the third Peter, was the one who failed in an attempt to effect delivery with the forceps in a case of dystocia occurring under the observation of Mauriceau in Paris, and was also the visionary busybody whom Macaulay describes as "pre-eminently conspicuous among the political mountebanks whose busy faces were seen every day in the lobby of the House of Commons," and who finally fled to Holland under suspicion of having defrauded his associates in the Land Bank scheme, and there sold the family secret to Roonhuysen; that Paul Chamberlen, a brother of

Hugh's, was an unmitigated quack; and that Hugh, junior, the last of the family, led a quiet and respectable life as a physician.

In regard to Dr. Aveling's conclusion that the elder Peter was the real inventor of the forceps, the evidence in its favor is not altogether convincing, consisting mainly in the inference that some of the instruments found secreted in a house that had formerly been owned and occupied by the third Peter antedated the forceps actually used by himself, and in the fact that Smellie, speaking of the instrument employed by the Chamberlens, makes use of the expression "said to be contrived by the uncle," which uncle could have been none other than the first Peter.

Dr. Aveling has corrected some errors that have long passed current in regard to the Chamberlens, and has added materially to our stock of information about the family. His work, therefore, constitutes a notable contribution to the history of obstetrics. It is a very fair reflection, also, of the state of medical ethics in London in the seventeenth century, when the Royal College of Physicians, having been invested with full power to enforce their arrogant pretensions over the surgeons, brooked no infringement of their privileges, but fined every surgeon that had the audacity to prescribe even the most simple internal medication—and that, too, although they themselves were at full liberty to practice surgery.

Living in such times, it is not to be wondered at, says Dr. Aveling, that the Chamberlens failed to feel it incumbent on them to make their invention public. That they were men of great ability can not be denied, notwithstanding their erratic and bombastic character.

BOOKS AND PAMPHLETS RECEIVED.

Discursos leídos en la Sesión de Aniversario celebrada por la Sociedad Española de Hidrología Médica el día 4 de Marzo de 1883, por el Secretario General, Dr. D. Benigno Villafranca y Alfaro, y por el socio fundador y de número, Dr. D. José María Bonilla y Carrasco, Presidente de la misma. Madrid, 1883. Pp. 53.

Nephrotomy for Hydronephrosis. Recovery. By A. T. Cabot, A. M., M. D., Surgeon to Out-patients in the Massachusetts General Hospital, etc. Pp. 8.

Safety on Land and Sea. Time without a Watch or Chronometer. Amusement, Instruction, etc. Planisphere of the Stars, improved by Dr. William F. Thoms, President of the American Humane Society, etc. Fifth edition. New York: Published by the author, 1883. Pp. 29.

The 112th Annual Report of the State of the New York Hospital and Bloomingdale Asylum, for the year 1882.

Third Biennial Report of the Trustees, Superintendent, Treasurer, and Architect of the Illinois Eastern Hospital for the Insane, at Kankakee, October 1, 1882.

Fifth Biennial Report of the Trustees, Superintendent, and Treasurer of the Illinois Southern Hospital for the Insane, at Anna, October 1, 1882.

A Manual of Chemical Analysis as Applied to the Examination of Medicinal Chemicals. A Guide for the Determination of their Identity and Quality, and for the Detection of Impurities and Adulterations. For the Use of Pharmacists, Physicians, Druggists, Manufacturing Chemists, and Pharmaceutical and Medical Students. Third edition, thoroughly revised and greatly enlarged. By Frederick Hoffmann, A. M., Ph. D., Public Analyst to the State of New York, etc., and Frederick B. Power, Ph. D., Professor of Analytical Chemistry in the Philadelphia College of Pharmacy. Philadelphia: Henry C. Lea's Son & Co., 1883. Pp. 624.

The Electric Light in Surgical Diagnosis. By Roswell Park, M. D., etc., of Chicago. Brooklyn, 1883. Pp. 22. [Reprint from the "Annals of Anatomy and Surgery."]

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Edited by
FRANK P. FOSTER, M. D.

NEW YORK, SATURDAY, APRIL 7, 1883.

PARTNERSHIPS IN MEDICINE.

THE small prospect of success held out to those who enter upon a medical career with the hope of reaching a high degree of material prosperity is ordinarily narrowed almost to the vanishing point by the consideration that, as a rule, nothing in the shape of pecuniary gain can be counted on, even in the event of a leading position having been attained to, save as the result of personal work—in other words, a lawyer, a tradesman, or even an artisan, provided he is endowed with a modicum of the brain power, and puts into his work a tithe of the energy, that the practitioner of medicine finds essential to the ordinary degree of success, stands a very good chance, not only of earning a competence, but of acquiring wealth, mainly by virtue of his being able to multiply the working capacity of his establishment by adding to the number of those whom he employs, he himself being just as well able to direct the work of a hundred as that of one man; whereas physicians have not usually been able to add to their corps of assistants without lessening their own importance to some extent.

To take the case in which this contrast is least striking, that of the lawyer: when we consult a gentleman of that profession, our contact is likely to be with him only, and whatever admiration we come to feel for the management that must have been brought into play to secure a settlement of the affair in hand to our satisfaction is given to him, although the plan of that management may have been the work of a colleague, and although the routine work was probably done by paid subordinates. Such being the possibilities of the case, lawyers may increase their business to an extent practically unlimited by drawing on the capabilities of their associates, just as a manufacturing house may profit by the special skill of an individual workman in its employ. It is not at all to the discredit of either the lawyer or the manufacturer that he conducts his business in this way; we simply point out that their opportunities are such that they can do so without any disadvantage to themselves or their patrons, and possibly very much in the interest of the latter.

With a medical man, however, the case is quite different. In his work the element of personal service is everything. He must do it all himself, or else bring his patron into direct contact with the man who is actually to do it, knowing full well that the latter and not he himself will get the credit that may come from the service. He, therefore, profits but little in comparison by the services of an assistant, for the assistant has constant opportunities of ingratiating himself with his principal's patrons, and may feel tolerably assured of succeeding, sooner

or later to the better part of the practice. Taking this consideration into account, we must say that the terms on which physicians' assistants are usually admitted to a participation in the practice, hard as they may seem to the junior, are not by any means unjust. If young physicians who are not so fortunate as to be able to form such an arrangement think themselves injured by the preponderating advantages it secures to those of their *confrères* who do succeed in the attempt, they may at least console themselves that they suffer for the general good of the profession and for that of the community, for the feasibility of such associations increases the dignity and the emoluments that it is possible for a man to arrive at in a medical career, and thus makes the medical profession more attractive than it otherwise would be to those who are considering the desirability of entering it. Consequently, better men are drawn into the profession year by year—men who are conscious of their ability to win a good position in any one of a number of different callings. Medicine is thus elevated, and the public is better served. Business principles, therefore, have a place among the agencies that are at work in enabling medical practice to keep pace with other pursuits.

But, while we recognize that such is the case, and that, as we remarked before, the principal in a medical partnership risks a good deal, and is fully warranted in exacting services of a high order in return for a very moderate pecuniary compensation, the thing may be carried too far. We should be sorry indeed to see the grinding system in vogue in some countries brought into play here, the feature chiefly objectionable in which is the enforcement of a contract that for a term of years the junior is absolutely bound not to take practice on his own account. This, with some others that might be mentioned, tends to a quasi-slavery that certainly is not conducive to a proper *esprit de corps*. Giving due weight, then, to all we have stated in favor of medical partnerships, we think it would not be well for the profession to have them multiplied at present as they may have to be multiplied when the ranks get to be more crowded, or to have any radical change made in the terms on which they are now generally arranged.

PHYSICIANS' DIVERSIONS.

SOME weeks ago we took occasion to speak of the dearth of channels calculated to lead an unsuccessful or disappointed practitioner of medicine into other pursuits more congenial or more promising. The same lack of opportunity, however, does not hedge the medical man in, if he will content himself with something less radical than an actual change of occupation, and seek what relief there is to be found in mere diversion. Indeed, it is not alone the discontented that need such an occasional shifting of the daily burdens with which a professional man is apt to find himself loaded down. As a people, we are overworked, and it may well be doubted if this is not more decidedly the case with physicians than with most other classes of the community. Not that men in the other professions, and even in mercantile life, are not overborne at times with perplexity and anxiety; but it is assuredly true of most of them

that at least the hum-drum work of their daily life is ordinarily confined within certain specified hours. But the physician, and especially the general practitioner, seldom finds himself quite free from the liability of being called on to do routine work. Even an escape from town brings him little exemption, for the title by which men are accustomed to address him betrays his calling to all those among whom he finds himself, and it is with scant compunction that strangers tax the time and strength of any luckless doctor they may chance to find accessible.

It is not every practitioner who can afford himself even the liberty thus limited. To only a few is the annual trip to Europe open, or even a few weeks' sojourn in the woods or at the seaside. To such as are debarred from these occasional periods of refuge, some diversion near at hand, always available at stray opportunities, might be made of the utmost comfort and usefulness. In the case of city men, a good number find the needed recreation in the clubs; but there are many, and they are apt to be of the finer nature, for whom the club has no very great attraction; and, as a matter of course, our country brethren have no choice in the matter. Still, for one and all, some variation of the constant pot-boiling work is a necessity, and should be so regarded; but, in the great majority of instances, the demands of interest and duty narrow the scope of this possible variation to this, that whatever is resorted to must not involve absence from the post. Practically, then, it is under one's own roof that relief must be sought in most cases.

There are many resources, fortunately, that can be brought within this narrow field. One of these is creeping into favor very widely at the present time. We refer to amateur photography. With an outfit comparatively inexpensive, such as is now to be had in any of our larger towns, and with such instruction as is readily attainable without the aid of a personal teacher, any man at all fitted for experimental work—and none others should be found in our profession—may, with a few weeks' practice, reach such proficiency in the art of photographing as to make its pursuit at odd times a source of no little satisfaction. Even one who may think himself utterly destitute of any artistic turn will be surprised and gratified to find how readily his faculties are drawn in that direction. This, however, is only one of many such resources that might be mentioned; the point is, to lead overburdened men to take up with something of the sort, the particular choice being a matter readily settled by a little thought.

THE UNITED STATES MEDICAL COLLEGE.

We recently chronicled a temporary victory of the Medical Society of the County of New York over that precious institution, the United States Medical College. Already we hear, however, that an attempt is on foot to secure such special legislation as shall legalize the college and protect it against further molestation. In several instances the Legislature of this State has acted with reference to medical matters as if it were bent on preventing the operation of all legal provisions and

natural tendencies calculated to aid in elevating the standard of the profession, and on doing everything in its power to multiply quacks among us. In most of these instances, if not in all of them, it is but fair to say there have been circumstances that gave some color to the idea that the acts in question were passed under a false impression. But in the case of this college we can scarcely conceive that there should be any difficulty in proving to the Legislature that the institution is not simply in the attitude of having neglected certain legal formalities in the matter of its incorporation, but is actually a reproach to the community by reason of the terms on which it grants its diplomas. We are not ready to believe that a majority of the legislators of the State of New York are willing to resort to special legislation for the purpose of propping up an institution the ill-repute of which in other and younger States is so marked as that of the United States Medical College.

We lately received a letter from Dr. James E. Reeves, the Secretary of the State Board of Health of West Virginia, in which, speaking of the college we have referred to, he says: "Three or four weeks ago an itinerant doctor from New York came to Wheeling, to run his specialty of curing piles and expelling tape-worms, armed with a diploma fresh from the establishment above named, which he offered as a basis for registration in West Virginia. On general principles, his diploma was refused recognition." What a praiseworthy piece of work would it be, forsooth, for the law-making power of the great State of New York to gloss over the disabilities of this so-called college, the reputation of which in a sister State is such that the authorities of that State, in the absence of specific information, and acting on "general principles" only, find themselves impelled to refuse recognition of its diplomas!

It should be understood by the Legislature that this college is not persecuted because it is supposed to teach sectarianism, so far as it may by a stretch of the imagination be credited with teaching anything; for the regular medical organization in the State does not now oppose irregular schools of practice before the law. The new code of ethics is really on trial in this matter, for one of the chief of the good results hoped for from it by its supporters was, that it would put the profession in such a liberal attitude before the people of the State that we should soon hear the last of the cry of "persecution" whenever measures were taken to root out an opprobrium. We are quite sure that many of those who lately helped to continue the new code in action did so for the sake of securing this attitude of freedom from intolerance, and the consequent demolition of one of the impediments that have heretofore stood in the way of the influence that the organized profession of medicine ought to be able to bring to bear upon the Legislature. If the Legislature now shows itself not to have been convinced of the disinterestedness of the profession in undertaking such measures for purging itself as are involved in running down the diploma-mill gentry, notwithstanding the position it has taken in its treatment of other schools of practice than its own, either we must settle down to the conviction that our legislators are exceptionally stupid, or else we must confess

that the new code will not bear the interpretation that we supposed would be obvious.

ITINERANT PRACTITIONERS.

By the same letter from which we have quoted in another article, we learn that in West Virginia an itinerant must show himself to be possessed of the qualifications that would entitle him to practice medicine in the State. If he can not show a diploma from a reputable college, he must submit to an examination by the State Board of Health. Having passed that, and been duly registered, he must then pay a special tax of fifty dollars a month, or fraction of a month, in every county he enters. Our correspondent adds that the law is enforced in every instance, and that hence traveling doctors now give West Virginia a wide berth. We esteem it a great favor that the secretary of the board should have taken the trouble to inform us in regard to these matters, and we cordially congratulate our West Virginia brethren on the requirements of the law in their State, as well as upon the fact that their State Board of Health is entirely made up of physicians.

It is not impossible, of course, for a traveling practitioner of medicine to be a creditable member of the profession. Indeed, we once knew of an exceedingly accomplished oculist, an expert operator, a modest and scholarly gentleman, who went from town to town practicing his specialty. He was accustomed to make himself known through the profession only, never resorting to *ad captandum* tricks; indeed, not consenting to receive patients except on the recommendation of their physician. He was a man who might have prospered and been respected had he chosen to fix his abode in any large town, but evidently it suited his restless turn to revive the practice of a bygone age in so far as he was concerned, and his eccentricity can not by any means be taken as affecting the broad proposition that in this period of the world's progress the itinerant practitioner of medicine is almost of necessity an impostor. Certainly the exceptions must be rare.

THE PROPOSED NEW HEALTH DEPARTMENT.

ONE of the features of the bill now before the New York Legislature for changing the charter of this city places the various city departments each under one head, instead of in the hands of a commission as at present; and, of course, it includes the Health Department. Now, our sanitary administration for some years past, in fact ever since the creation of the Metropolitan Board of Health in 1866, has been very creditable on the whole, in spite of some shortcomings. It is to be hoped, therefore, that no hasty action will be taken looking to so radical a change, especially as the appointment of the single officer proposed is to be placed in the hands of the Mayor and the Board of Aldermen. It is not impossible, to be sure, that a man fit for the place may be so appointed; indeed, there might be a good prospect that such would be the case provided the appointing power rested with the Mayor alone, but for the Board of Aldermen to agree to the appointment of a man

whom the profession and the community could look upon as thoroughly qualified to preside over the sanitary administration, is more than experience leads us to hope for.

Proceedings of Societies.

NEW YORK SURGICAL SOCIETY.

A STATED meeting was held January 23, 1883, T. M. MARKOE, M. D., President, in the chair.

COMPLICATIONS ARISING FROM UNDESCENDED TESTICLES.—Dr. J. L. LITTLE read the following paper:

There are three positions in which a testicle may be detained in its transit from the abdominal cavity to the scrotum: 1. In the abdominal cavity near the internal ring. 2. In the groin near the external ring. 3. In the inguinal canal.

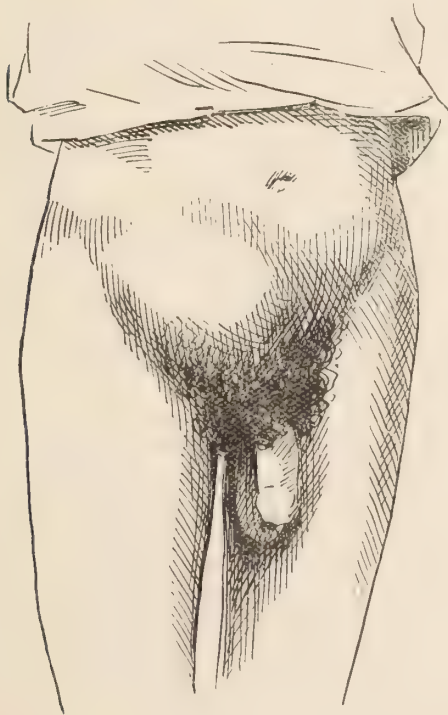
A number of such cases have come under my observation. The most common variety has been where the testicle was retained just outside the canal near the external ring. I have met with one case, in a child, in which both testicles were retained in the abdominal cavity, as no trace of them could be felt in the canal. A number of cases have been reported in which the testicle in this situation has become the seat of malignant disease; no instance of this kind, however, has come under my observation.

Cases where the testicle is arrested just outside the external ring are not infrequent. In several that I have seen the testicle could be pushed back into the inguinal canal, but as soon as pressure was removed it would assume its original situation: A few years ago I was called to see a patient in whom a testicle in this position was the seat of gonorrhœal epididymitis. It was in a patient of about eighteen years of age who had been suffering from gonorrhœa for some weeks. His symptoms were very severe: constant vomiting, with intense pain in the groin and lumbar regions. Upon examination, a hard swelling was found situated just outside of the right external ring, with the absence of the testicle from the scrotum. This swelling was of about double the size of the testicle of the opposite side, and resembled a strangulated hernia both in symptoms and in appearance. The history and the absence of the testicle from its normal situation were sufficient for diagnosis.

Second. On August 17, 1868, I was called to see a patient who had a strangulated hernia. His history was as follows: He had suffered from what he supposed was a femoral hernia for many years, for which difficulty he had been in the habit of wearing a truss. The morning on which I was called he had gone out for an early drink, and neglected to apply his truss. The rupture came down and became strangulated. Upon examination, I found a tumor of about the size of an orange on the right side, just above Poupart's ligament, resembling in many respects a femoral hernia which had rolled up over the ligament. Failing to reduce it by taxis, I etherized the patient, and found upon examination that he had an undescended testicle situated just outside of the external abdominal ring, and that the tumor was formed by the distension of the inguinal canal. Failing to reduce it by taxis under the anæsthetic, I cut down through the walls of the canal, and found about ten inches of the gut in a strangulated condition. The seat of the stricture was at the internal abdominal ring. The testicle was lying internal to and behind the gut, just outside the external ring. The internal ring was enlarged and the gut returned, and the patient made a good recovery. In this case the testicle was normal in size and ap-

pearance, and I have no doubt could be easily pushed up into the canal, so that his truss was worn without inconvenience.

The next case, sent to me by Dr. William A. Hammond, is one in which the testicle was retained in the inguinal canal. The patient was twenty-six years of age, and had the following history: He had never noticed anything like a testicle on the right side until three years before he came under observation, when, while exercising on a trapeze, he received a blow on the right side of the abdomen, which gave rise to severe pain, similar to that produced by pressure upon the testicle of the other side. About a month after, he noticed a small and soft tumor on the right side, just above the external ring. From that time, after any violent exercise, straining, or long walking, the tumor would increase in size, and become very painful. After a few days the swelling would subside, but the tumor would never become as small after an attack as it was before. Last winter the patient wore a truss for some time without any benefit. The tumor gradually increased in size. On examination, only the left side of the scrotum was found to be developed, which contained a testicle of normal size. In the right inguinal region was a swelling extending up in the direction of, but some distance above, the inguinal canal. A moderately firm and perfectly movable tumor could be felt. This could be moved so as to lie almost at right angles to its normal attitude. Firm pressure upon the upper part of the tumor gave rise to a sensation similar to pressure upon a testicle. The tumor was about four inches long by two inches broad. The external abdominal ring could be distinctly felt, but was so small that the little finger, in invaginating the tissues, could not be passed into it.



On November 24th the following operation was performed at St. Luke's Hospital with all the antiseptic precautions. The coverings of the tumor were rendered as tense as possible by grasping it with my left hand, and an incision about five inches in length was made over the most prominent part, nearly parallel to Poupart's ligament. The tissues were divided until the peritonæum was reached. This was opened upon a director, and the tumor was then forced out from its bed. Its attachments were composed of folds of peritonæum extending along

its entire inferior surface; a large number of tortuous vessels were seen beneath this peritoneal pedicle, more abundant at the upper extremity than at the other portions. A double catgut ligature was passed through the center of the pedicle and tied on both sides. Another ligature was applied embracing both halves of the pedicle, and the tumor was then removed. An exploration of the wound with a view to ascertaining whether it communicated with the abdominal cavity was made. The deep parts of the wound were brought together with three Lister's leaden plate sutures, and the superficial wound was united by the ordinary silk suture. The wound united by primary union, without any untoward symptom.

On examination by the pathologist of the hospital, Dr. S. Terthwaite, this tumor proved to be a round-cell sarcoma. In shape it was a flattened ovoid, while its dimensions were four inches in length by two broad and one inch and a half thick. On section, its cut surface was of a pinkish color, simulating brain substance both in consistence and in feel. It was inclosed in a coat of peritonæum, which formed its capsule, while in the folds that were given off posteriorly were portions of the vas deferens and spermatic vessels. At its anterior and external portion there was a trace of the normal tissue of the testis.

In conclusion, it seems to me that in all cases where a testicle is situated either in the canal or just outside the external ring, and becomes a source of annoyance to the patient, it would be judicious to advise its early removal.

In the case which I have related complicated with hernia, I have since regretted that I did not remove the testicle at the time of the operation, for, unless it can be readily pushed back into the canal, a condition which would hardly obtain after the operation, a truss would be worn with considerable difficulty. I have never had the means of ascertaining the after-condition in the case related.

Dr. E. L. KEYES had had one case, complicated by omentum hernia, in which the undescended testicle could not be kept outside the external ring by a truss, although it could be easily pushed through the opening. The patient had had a number of accidents in the way of pain; and at intervals, when he did not wear a truss, the hernia would get down and cause a swelling in the groin, which he had always been able to replace. Finally one of these swellings occurred during the absence of the truss, and the patient failed to replace the lump. He then suffered from symptoms arising from partial strangulation, continuing for a number of months. Dr. Keyes operated upon him, and found that he had a hard portion of omentum strangulated at the internal ring, with a testicle just below it. He removed the atrophied testicle, and cut off the piece of strangulated omentum. He ligated the cord very high, and left the pedicle of the omentum in the internal ring, which was entirely filled by it. The operation was performed, under antiseptic precautions, about ten years ago, and the patient made a rapid recovery. He subsequently wore a truss for a considerable period, after which he experienced no trouble whatever. He had also since become the father of several children. The other testicle was normal in structure and position.

Whether it was justifiable to cut out the testicle in the cases before some emergency required the operation, he was uncertain; he was not prepared to say that he would advise it. He had frequently seen these undescended testicles in young children, and believed that, if sufficient care and attention were given, the testicle might be gradually pulled down, and finally be made to remain permanently outside the external ring, in a certain proportion of cases, until it developed at puberty, and then no further trouble would follow. But it was exceedingly difficult to get a retentive pad that would act satisfactorily, even if the testicle could be drawn down and held outside the

external ring with the fingers. In answer to a question asked by the president, Dr. Keyes said that he had had one case in which he succeeded in keeping the testicle outside the external ring, but he was not able to replace it in the scrotum. To succeed in any of these cases required a long time, and great care and patient attention on the part of all concerned. He had failed in the effort several times.

Dr. SANDS said that Dr. Little had made one remark which perhaps should be qualified, he having suggested that whenever a testicle situated in the inguinal canal became an annoyance it should be removed. It was well known that the operation for the removal of a testicle situated in the inguinal canal was one of much greater danger than the ordinary operation of castration, which was attended with little risk if carefully performed. But, when the testicle was situated in the inguinal canal, it was very liable to be surrounded by peritonæum, which might have to be divided in order to remove the tumor, and it seemed to him that such an operation should hardly be performed for the relief of a mere annoyance. He did not doubt, however, the propriety of removing a testicle so situated when it became the seat of a morbid growth, although, under these circumstances, the operation was attended not only with greater risk than the ordinary operation of castration, but with a greater improbability of a complete removal of the disease. He thought that in quite a large proportion of the cases in which it had been done the malignant disease had already involved the lymphatic glands in the abdominal cavity. Here it might be said that valuable evidence could sometimes be obtained on this point by manual exploration of the rectum. A man came under his observation in Bellevue Hospital, some years ago, who entered the institution for the purpose of submitting to castration. The left testicle was very much enlarged, and the diagnosis of malignant growth of the testis was readily established. The tumor was so large, however, that it was suspected the disease had extended into the abdomen. Dr. Sands was unable to settle this point by external examination, on account of the thickness of the abdominal walls, but he found, upon making firm pressure in the left lumbar region, a tenderness and a feeling of resistance not noticeable upon the opposite side. He removed the doubt by passing his hand into the rectum, when, with great ease, a swelling could be felt in the abdominal cavity, evidently due to infiltration of the lumbar glands; accordingly, he abstained from operation.

He recalled another case in which he failed to appreciate the presence of an abdominal tumor in a young man whose testicle he had previously removed for sarcoma. The patient made a good recovery, but months afterward he showed signs of suppression of urine, and, on this account, he came under observation a second time. Examination of the abdomen failed to discover the cause of the trouble. Various medicines were given to cause the kidneys to act, but they failed. Death occurred, and inspection of the abdomen revealed a large mass of cancer situated upon the posterior abdominal wall, probably originating in the lymphatic glands. The mass was so situated as to completely prevent the passage of urine through the ureters, and the so-called suppression of urine was really retention of urine, both of the ureters being greatly distended above the points of obstruction.

He had met with one instance in which the testis had descended beyond its usual position, and was situated in the perinæum. The person who was the subject of this malposition was a young man, who complained that he was unable to ride on horseback without suffering from pain due to pressure upon the misplaced organ, which was of about half the size of the opposite testicle. Dr. Sands performed an operation, with the intention of placing the testis in the scrotum; but he found the

operation to be impracticable, and, therefore, removed the testicle, when all unpleasant symptoms disappeared.

Dr. LITTLE stated that Mr. Curling gave the same advice in regard to the treatment of undescended testicle as that suggested by Dr. Keyes, and related several cases in which a truss was used to prevent the testicle from slipping back through the external ring into the canal. Mr. Curling also advised that in cases where the testicle was situated in the inguinal canal, and could readily be pushed back into the abdominal cavity, the patient should wear a truss with a pad over the inguinal canal, so as to keep the testicle back in the abdominal cavity, it being a much more comfortable place for the patient to wear his testicle than in the canal.

Dr. YALE said that the latter point mentioned by Dr. Little was illustrated in a case which came under his observation in the Presbyterian Hospital. A young man had a partially descended testicle. He had been examined, and had been told that he had a hernia, for which a truss was applied, and it had the effect of crowding the testicle back into the abdominal cavity; but subsequently a strain brought the organ down into the inguinal canal, and he had considerable pain, together with symptoms not unlike those attending strangulated hernia. As the testicle could not be brought farther down, Dr. Yale, with considerable difficulty, succeeded in returning it within the cavity, when the symptoms were relieved, and no further inconvenience had been suffered from the presence of the testicle in the abdomen.

Dr. KEYES said that Godard directed attention to the fact that the cryptorchid was sterile, while a monorchid was not sterile; that the testicle was more or less damaged if it was retained in the inguinal canal; that those which were retained just within the inguinal canal were in a condition of partial atrophy, and that the other testicle was correspondingly hypertrophied. Whether this partially atrophied testicle was incapable of secreting sperm properly, Dr. Keyes was unable to say; also whether, if the testicle was in good condition, it would be harmed by being pushed into the abdominal cavity and retained there, he was unable to say. He had met with one cryptorchid, and in that instance the man was potent, and had emissions, but he was sterile. His seminal fluid contained no mature spermatozoa.

Dr. POST asked if cryptorchids could beget children.

Dr. KEYES said that such cases were upon record, but that the children did not generally resemble the father; that is, so far as he knew, all such cases of alleged paternity had been shrouded in considerable doubt.

Dr. SANDS thought it would be unsafe to say that testicles were useless in persons who had power of copulation. There was no exception to the rule that where both testicles were removed the power of copulation remained for only a time. Sir Astley Cooper had recorded one case in which a man had lost both testicles, but retained the power of copulation for perhaps a year, after which the desire and the power gradually ceased. He believed that usually the desire and ability to copulate implied the existence of some testicular elements, although the general fact was that those who had both testicles retained were usually sterile. He thought that if subjects who were sterile had normal desires, and were able to gratify them, the most rational supposition would be that normal tissue of the testicle existed in a greater or less amount, but that the spermatic fluid was unable to make its way into the seminal vesicles. He had met with a singular instance of undescended testicle in the case of a young man upon whom he once operated for strangulated hernia. The case was interesting as showing that a concealed testicle might give rise to a peculiar form of hernia. The man was twenty-five years of age, and was said to have been addicted to sexual dissipation. His scrotum was empty, and he

had a hernia upon the left side, which became strangulated. Dr. Sands found, upon proceeding to the operation, that only a very slight protrusion existed at the external abdominal ring, in consequence of its small size. Having divided a stricture at the external abdominal ring, and, as he supposed, pushed the intestine back into the abdomen, he introduced his finger, and discovered that he had not relieved a strangulation which existed at the internal abdominal ring, and that, while only a small portion of the intestine had escaped through the opening in the external ring, a large mass remained in the inguinal canal. The stricture was divided at the internal ring, and he was then able to push the intestine into the abdominal cavity, for which he had at first mistaken the hernial sac. A small testis was found in the inguinal canal. The person had a well-developed penis, and had an abundance of hair upon the pubes. He also had a beard. Dr. Sands thought that in most cases in which the testicles were retained, and the individual impotent, there were but few evidences of puberty.

Dr. G. A. PETERS asked if a testis retained in the cavity of the abdomen was not quite frequently the seat of malignant disease, or more frequently thus affected in that position than when within the canal or just external to it.

Dr. KEYES remarked that there was an impression to that effect, but he did not believe that the statistics had been sufficient to substantiate it.

Dr. LITTLE remarked that cases had been reported in the "Medico-Chirurgical Transactions," "British Medical Journal," "Medical Times and Gazette," and other journals, where undescended testicles had become the seat of malignant disease. And authors, for instance Gross, in his work on surgery, stated that the danger of the detention of the testicle in the inguinal canal or abdominal cavity was, that it was prone to become the seat of malignant disease; but no statistics had been given to sustain this statement.

DERMOID CYST OF THE OVARY.—Dr. F. LANGE presented a specimen removed from a patient thirty years of age. It contained a large mass of hair and some bone. One portion presented an appearance almost exactly like a piece of the scalp, and it was from this part that the hair took its origin. There had been a variety of opinion with reference to the nature of the tumor, but for the most part it was regarded as a solid growth and in close connection with the uterus. At the time he saw the patient it had become quite clearly established that the tumor contained considerable fluid, that probably the uterus had been entirely crowded to the left side, and that the growth did not have its origin in that organ. It seemed, by internal examination, that the tumor was situated in the broad ligament. The operation was very difficult in consequence of the absence of a pedicle and the presence of extensive adhesions. Many ligatures were applied to the adhesions, which were cut in each instance with the actual cautery, and the wounds were powdered with iodoform. Although the operation lasted two hours, the loss of blood was insignificant. The left ovary was also removed on account of cystic degeneration. It was of about the size of a small hen's egg. Scarcely any reaction followed the operation; at no time did the temperature rise above the normal. He thought that the patient was out of danger. The operation was performed eight days ago. It was the second dermoid cyst which he had removed within the last three months. The former was from a girl nineteen years of age.

[At the time of writing the patient is out of bed and out of danger.]

STRAIGHT URETHRAL SOUNDS.—Dr. POST presented several samples of straight steel sounds for treating strictures in the straight portion of the urethra. The advantage claimed for

them was that they could be used with greater facility than the curved instruments, and that, when given a rotary motion, they caused less pain. One was fusiform in shape. They measured 25 centimetres in length, 27 millimetres in circumference round the bulb, 34 millimetres at a distance of 7 centimetres from the bulb, and 30 millimetres 12 centimetres from the handle.

PHARYNGEAL TUBES.—Dr. L. A. STIMSON said that since the last meeting of the society, at which Dr. McBurney read a paper on tracheotomy as a preliminary operation, he had had a patient under his care with a tumor of the superior maxilla, and it had occurred to him that possibly a substitute could be devised for the tracheotomy tube, consisting of a tube to be introduced through the mouth into the pharynx, the space around it to be blocked with sponges in a manner which would prevent the passage of blood into the pharynx, air-passages, or œsophagus. After talking the matter over with Dr. McBurney, who had conceived the same plan independently, and following Dr. McBurney's suggestions with reference to details, an apparatus was constructed which consisted of a tube six or seven inches in length and of the diameter of a No. 38 urethral sound, about an inch and a half of its extremity curved to almost a quarter of a circle, and provided with a flange one eighth of an inch in breadth, perforated with small openings, through which threads could be passed. About that curved portion he tied a sponge, stitching it fast to the flange and placing behind it a piece of impervious tissue, in order to favor the retention of such blood as might soak through the sponge. After complete anæsthesia had been produced in the usual manner, the tube was passed into the mouth and carried well down behind the root of the tongue, but it caused so much gagging that it was necessary to withdraw it until it reached only a little behind the uvula, so that the patient still breathed partly through the nose. While the preliminary incision was being made and the flaps were being dissected up, sponges were placed between the teeth, and this packing proved very satisfactory indeed. The patient was able to breathe. Anæsthesia was maintained without difficulty through this tube, and, although he bled very freely, the sponges caught all the blood, and it was only necessary to change them as soon as filled. After the flap had been dissected and bleeding points secured, the hæmorrhage was inconceivable. During the piecemeal removal of the growth, which included all the right and a portion of the left superior maxilla, and left a cavity which opened into both nostrils, and backward into the pharynx above the soft palate, there was no trouble whatever from the bleeding. Sponges were kept behind the surface of section and caught all the blood. The tumor was an ordinary carcinoma, and the only point concerning it which was remarkable was the fact that it had so affected the gum corresponding to it that a small fragment snipped off for microscopical examination presented all the appearance of epithelioma, even to the completely formed nests of cells. This appearance of epithelioma was due to secondary change of the papillary layer of the gum. The true tumor itself was an alveolar cancer, which had evidently originated farther back and in the substance of the bone.

Dr. Stimson said that he was aware that tubes had been devised to pass into the trachea, but that was not the intention in his apparatus. It was his intention that it should not pass beyond the pharynx. The suggestion was so simple that he thought it must have been acted upon by others, and he had shown the instrument to the society in the hope that further trials might be made with it which would increase its efficiency.

NECROSIS OF A COSTAL CARTILAGE.—Dr. J. C. HUTCHISON presented a portion of the cartilage of the eighth rib removed from a man fifty years of age, who two years previously had

typhoid fever which lasted for a considerable time. Six months later he had two abscesses over the cartilage of the rib—one at the junction of the cartilage with the rib, and the other where the cartilage joined the sternum. A probe reached the cartilage very readily, and during the last two months he had been able to push the probe apparently into the cartilage. Latterly the patient had suffered considerable pain, especially upon coughing, and Dr. Hutchison determined to remove the diseased portion, which he did by making an incision directly over the cartilage. The perichondrium was separated from the cartilage, and a chain-saw carried about it very readily, near the point where it joined the rib, and he subsequently discovered that there was separation at that point. The cartilage at the point where it joined the sternum was easily snapped off. On examination, he found that the disease was confined to the anterior portion of the cartilage. He, however, removed the portion which remained, so that the entire cartilage was removed. The end of the rib was perfectly healthy. The case was the only one which had fallen under his observation of disease of cartilage of the rib.

NEURALGIA OF THE INFERIOR DENTAL NERVE FOLLOWING FRACTURE OF THE LOWER JAW.—Dr. STIMSON narrated a case in which the patient, after the lapse of seven months, suffered from neuralgia following fracture of the lower jaw. The fracture was on the left side and united with some displacement. The patient returned to him in December, complaining of numbness and sensitiveness in the region of the cutaneous distribution of the inferior dental nerve, and also of inability to properly masticate because of displacement of the jaw. Dr. Stimson found that the difficulty in mastication was due to depression of the anterior fragment, and he relieved it by gouging away a portion of the posterior fragment which interfered with an upper molar. The union between the fragments was fibrous, and a temporary increase of the slight mobility followed the operation. The pain increased afterward to such an extent, although it was temporarily relieved by the use of an interdental splint, that the patient returned and demanded some operation for her relief. Pain upon pressure over the mental foramen was acute, and also along the course of the inferior dental nerve before its entrance into the canal. He exposed the nerve before its entrance into the canal by the usual incision within the mouth, raised it up, and divided it. He desired to excise a portion, but was unable to hold it with the forceps so as to remove it. Relief was immediate and complete for perhaps ten days, but sensitiveness then again began to return in the region of the nerve just where she formerly complained of it when the mental foramen was pressed upon.

Dr. HALSTED referred to a case in which he excised about one centimetre from the inferior dental nerve. The neuralgia was severe, but relief was given. He found exsection of a portion of the nerve very difficult to perform.

Dr. STIMSON referred to a case in which Dr. Sabine had divided the inferior dental nerve for the relief of neuralgia, and in which Dr. McBurney subsequently removed a portion of the nerve. The excision was followed by a cure which had now lasted for one year.

Dr. HUTCHISON referred to two instances in which he succeeded in curing obstinate neuralgia by ligature of the carotid artery.

Dr. LANGE referred to a case, already reported to the society, in which the patient had had a variety of operations performed with a varying amount of relief, but permanent relief had not yet been obtained.

Dr. STIMSON remarked that the traumatic origin of the neuralgia in his case seemed to him to be sufficient to justify the division of the nerve above the point of irritation.

Reports on the Progress of Medicine.

QUARTERLY REPORT ON OPHTHALMOLOGY AND OTOTOLOGY.

No. XIII.

By CHARLES STEDMAN BULL, M. D.,

LECTURER ON OPHTHALMOLOGY AND OTOTOLOGY IN THE BELLEVUE HOSPITAL MEDICAL COLLEGE; SURGEON TO THE NEW YORK EYE AND EAR INFIRMARY; OPHTHALMIC SURGEON TO ST. MARY'S FREE HOSPITAL FOR CHILDREN, AND TO THE NURSERY AND CHILD'S HOSPITAL.

(Concluded from page 361.)

IMPROVEMENTS IN THE EXTRACTION OF CATARACT.—Wecker (*ibid.*) reports a number of improvements which he has made in operating for cataract, which concern three points: 1. The closure of the wound. 2. Direct disinfection. 3. The disengagement of everything which might become fastened in the wound. During the sixteen months since June 6, 1881, he has performed three hundred and sixty-six extractions without a single case of suppuration; and these exceptionally good results, he thinks, are due to a careful carrying out of the improvements in relation to the three points just mentioned. After the cataract has been extracted, he carefully removes with a rubber spatula all bits of lens matter, blood clots, etc., from beneath the central and lateral conjunctival flaps. He then adjusts these in apposition with the neighboring conjunctiva, and presses them against the underlying sclera. Direct disinfection of the wound is the second modification. He carefully cleanses the conjunctiva and the ciliary border of the lids with a four-per-cent. solution of boracic acid and a one-per-cent. solution of salicylic acid. Whenever he uses a spatula, it is first dipped in a two-and-a-half-per-cent. solution of carbolic acid, and he also bathes the wound with the same solution. The third point is to avoid, as far as possible, all adhesions of iris and capsule in the wounds. In making his incision, he penetrates vertically into the anterior chamber with the point of a knife, planted exactly at the sclero-corneal margin, so as to equalize the extent of the exterior and interior lip of the wound near the points of puncture and counter-puncture. Moreover, he endeavors to make the apex of his incision agree with that of the vertical diameter of the cornea, so that the pressure may be sure to act in the line of the maximum opening of the section. For this purpose he uses during the operation oblique illumination. To facilitate this, he adjusts to the side of the operating chair or table a lamp constructed for the purpose. This lamp slides up and down on a vertical standard, to which it may be firmly fastened at any desired height by means of a screw clamp. This lamp carries a magnifying lens, by means of which the light is focused on the eye.

TRANSPLANTATION OF SKIN-FLAPS WITHOUT PEDICLES IN BLEPHAROPLASTIC OPERATIONS.—Wicherkievitz ("Kl. Mon. f. Augenheilk." Dec., 1882) takes up the subject of blepharoplasty by means of transplantation of flaps without pedicle, and discusses it in all its bearings. He first cites those cases which have been published by various ophthalmic surgeons, and then gives in fullest detail the histories of three cases of his own, and his general conclusions are that, while Wolfe's operation has considerable value, it does not always give the brilliant results which have been claimed for it. First of all, he thinks that antiseptic measures should not be carried so far as to cauterize or chemically alter raw or freshly wounded surfaces. The application of artificial warmth is of importance in those cases where the coaptation of the skin-flaps is protracted by the introduction of many stitches; but it should be avoided where considerable parenchymatous hæmorrhage is produced by it. He does not

consider that sutures are always disadvantageous, for they often aid very efficiently the coaptation of the flaps with the edges of the surrounding skin. An intimate, lasting union of the transported flap with the underlying raw surface is necessary to complete success. In the future Wicherkiewicz would modify Wolfe's method by applying the transplanted flap without pedicle not upon a fresh, raw surface, but upon one which is already covered with granulations. He recommends the following procedure: If it is a case of ectropium, where there is not sufficient material for transplanting a flap with a pedicle, he detaches the everted lid completely from its cicatricial bands, excising, if need be, all cicatricial bands, and then stitches the edges of the lids together for a short distance. He then closes the wound antiseptically with boracic- or carbolic-acid dressings, or dressings of iodoform ointment. As soon as healthy, fresh-red granulations have covered the defective surface, which usually occurs in from ten to twenty days, he covers this surface with a flap, the exact size of the granulating surface, removed from some appropriate spot, having first washed the surface with one half per cent. carbolic-acid solution, and cleared it of all coagula. He then covers the flap and surrounding region with a piece of linen which has been coated with an eight per cent. boracic-acid ointment, or a three per cent. carbolated vaseline, and over this a somewhat larger piece of rubber paper or cloth; then a thick layer of borated cotton, and over all numerous turns of a gauze bandage which has been soaked in a five per cent. carbolic-acid solution. This dressing is not to be removed for four days, and, when it is removed, it should be done under the spray, and re-applied in the same way.

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OTOLOGY.

THE VASO-DILATOR NERVES OF THE EXTERNAL EAR.—Dastre and Morat ("Arch. de Phys.," Oct. 1, 1882) have been making some quite extensive investigations into the vaso-motor nerves, especially with reference to the external ear, based upon experiments upon dogs and rabbits. They are of the opinion that the local variations in the caliber of the vessels are dependent upon the contractile power of the vessels themselves, for, examined simultaneously in different regions, they present no agreement with each other. They, therefore, can not depend directly upon a temporary, rhythmic augmentation of the force

of the heart's contraction. They are simultaneous in symmetrical regions, as observed in rabbits' ears. The vascular muscle is thus to be regarded as antagonistic to the cardiac muscle. It is admitted by most physiologists that the dilator nerves of the vessels may be found in all nerves except the sympathetic. As a matter of fact, constrictors and dilators arise very near each other. They make their exit either by the same roots or by roots very near each other, and run usually in the same trunks. Irritation of one set is scarcely possible without irritation of the other set, and the effect observed is the resultant of two antagonistic actions. The vaso-dilator nerves of the external ear arise from the spinal cord in the upper part of the thoracic region, which is very near the origin of the vaso-constrictor nerves. These vaso-motor nerves together, therefore, form a very circumscribed, centralized system. The authors' experiments have demonstrated the absolute difference in result between irritation of the thoracic sympathetic and irritation of the cervical sympathetic. Irritation of the cervical sympathetic contracts the vessels of the ear, while irritation of the thoracic part in its upper part dilates them. The point where the effects of irritation are reversed is marked by the presence of a large ganglion, the first thoracic or inferior cervical ganglion. The most simple explanation of this phenomenon is that the dilator fibers terminate in the ganglion itself; and their action can only be understood by supposing that they end in ganglionic cells situated in the course of constrictor fibers, the tonic action of which they are thus able to suspend. In the reflex dilatation of the vessels of the ear, the nerve which determines the dilatation is the auriculo-cervical, a branch of the cervical plexus and the principal sensitive nerve of the tympanum. This nerve contains elements coming from the second cervical, and a small number of elements coming from the third cervical. The study of reflex dilatation of the vessels of the external ear fully confirms the results obtained in investigating directly the vaso-dilator nerves of this organ. All these experiments led the authors to the same conclusion, as follows: A notable proportion of the vaso-dilator nerves of the ear is contained in the sympathetic nerve trunk, and arises in that region of the spinal cord called by Budge and Waller the cilio-spinal center. From this same region arise the dilator nerves of the iris, and the secretory and constrictor nerves of the vessels of the face. From further experiments, it seems possible that these vaso-dilator fibers of the ear may have two origins—one in the spinal cord, and another, more problematical, in the medulla. After division of the cervical or thoracic sympathetic, reflex irritation of the centers provokes a still greater degree of vaso-dilatation, which must be attributed to the action of the nerves of the medulla, since by reason of the division of the sympathetic the spinal cord has no connection with the dilated vessels.

AN ATTEMPT TO FORM AN EXTERNAL AUDITORY CANAL IN A CASE OF CONGENITAL MALFORMATION.—Kiesselbach ("Arch. f. Ohrenheilk.," xix, 2 and 3) reports a case of this nature in a female child aged six months, the child being in other respects well formed. Both auricles presented the appearance of being pressed forward and bent over by a force working from behind, the malformation being most marked on the left side. No verbal description of the deformity will give a clear idea of the case. In operating for the discovery or formation of an external auditory canal, Kiesselbach made an incision through the little groove behind the rudimentary tragus into the subcutaneous adipose tissue. Pushing this incision down to the periosteum, not a trace was found of any auditory canal. He then cut carefully downward as far as the lower squamous border. Here the introduction of a fine probe discovered a narrow cleft, which was widened forward and backward until the probe in all directions encountered firm resistance. In order to prevent

the readhesion of these wall-surfaces, the lobe was detached from the auricle and its length doubled by an incision which split its surface from the anterior half of its insertion nearly to its posterior border. This flap was then thrust into the wound, so that its skin-surface was turned toward the annulus tympanicus, and its raw surface toward the lower and outer surface of the wound. The flap was then fastened in place by means of quilted sutures. It was later the intention to introduce a small tube in order to keep the skin-flap better in place, but the child was removed from observation before this could be done.

BILATERAL DEAFNESS FROM MUMPS.—Knapp ("Arch. of Otol.," xi, 4) reports a case of this kind in a young woman, aged twenty-five. Six years previously she had had an acute attack of mumps on both sides, which lasted two weeks. Hearing became affected on the seventh day, was completely lost on the eighth, and has remained so ever since. There was pain in the ear and head, but no discharge. She suffered from great dizziness, which lasted for months, and, in fact, has never completely disappeared. There has never been any tinnitus. Careful examination showed absolute deafness on both sides. Physical examination of the ears, Eustachian tubes, and naso-pharynx revealed perfectly normal conditions. All the symptoms, Knapp thinks, pointed to a labyrinthine lesion, but whether of a serous, hæmorrhagic, or purulent inflammation, can not be decided. A direct continuation of the disease through the auditory canal and tympanum, or through the canal of the facial nerve, is vague and improbable. He regards the trouble as metastatic in nature.

THE APPLICATION OF A DISINFECTING APPARATUS TO THE AIR-DOUCHE.—Lucae ("Arch. f. Ohrenheilk.," xix, 2 and 3) calls attention to the necessity of keeping pure and clean the air which is to be blown into the middle ear, and thinks with Zaufal that the simplest way to do this is by inserting between the air-bag and its nozzle of exit a capsule filled with salicylated cotton. He believes that the nearer the disinfecting apparatus is brought to the ear the more sure is the purification of the air likely to be, and recently he has arranged its introduction into the catheter itself. He has had a silver catheter made with an arrangement like a Buttle's inhaler near the outer end, which can be unscrewed and its cavity filled with salicylated cotton before introducing the catheter into the nostril. He keeps his catheters and the olive-shaped ends of his inflating apparatus in a solution of carbolic acid, in order to avoid, as far as possible, the chances of infection.

CONGENITAL DEAFNESS.—Moos ("Arch. of Otol.," xi, 4) found the sexes equally represented in the cases examined, and the age varied between one and seventeen years. In fourteen cases no cause could be assigned; in seven cases hereditary predisposition was present; in ten cases parental consanguinity; in three both hereditary predisposition and parental consanguinity; in one syphilis; in one intemperance of the father; in one premature birth; in one a high degree of scrofulosis of mother and child. Direct heredity existed in no case, while in seven cases an hereditary disposition could be proved. Moos agrees with modern ophthalmologists that almost all chronic parenchymatous inflammatory affections of the cornea, complicated with disturbances of hearing, are of syphilitic nature. He regards rachitis as an important cause of early anatomical alterations in the labyrinth. He agrees with Virchow that brachycephalic and microcephalic skulls, besides defective development of various parts of the brain, occasion also an atrophy of the petrous bone, a cause of the congenital deafness in such cases.

ONE HUNDRED CASES OF AURAL POLYPI.—Moos and Steinbrügge ("Zeitschrift f. Ohrenheilk.," xii, 1) give some very interesting facts in relation to aural polypi in these cases. The polypi were single in eighty-one cases, multiple in nineteen;

the latter occurred occasionally in the meatus alone, occasionally in the tympanum alone, and six times in both simultaneously. Otorrhœa was absent in only a single case. In all but one case the polypus was deep-seated in the meatus. Not a single polypus sprang from the drum-membrane itself nor from the handle of the hammer. The number of cases in which a relapse was undeniable was eighteen. The shortest interval between the operation and the relapse was one month; the longest, nine years. Ten polypi were accompanied with caries; six of the mastoid process alone; one of the meatus and middle ear simultaneously; one of the labyrinthine wall; one of the pyramid; and one of the meatus, mastoid process, and the pyramid together. Four of the cases were accompanied by cerebral symptoms before the operation. The immediate cause in all of these cases was the hindrance to the outflow of pus by the tumor; when the latter was removed, the cerebral symptoms disappeared. All of the cases of angiomas may be followed by excessive hæmorrhage during the operation, or by secondary hæmorrhage. The authors think that the term "mucous polypus" must be abandoned, but they adopt the rest of the customary nomenclature, except that they call the common "round-cell polypus" "granulation tumor," and subdivide the fibromata into pure and so-called angio-fibroma. These granulation tumors represent at the same time the transition step in the development of angio-fibromata. The latter term should be strictly reserved for such tumors as are developed from blood-vessels. A tumor with cavernous spaces should not be called an angio-fibroma. Clinically and microscopically, the fibromata are not to be differentiated in any way from the so-called angio-fibromata, but genetically there is a decided difference. The authors found only four myxomata in one hundred cases. Histological extravasations and pigment metamorphosis are frequently observed in aural polypi; they are sometimes circumscribed and sometimes diffuse. The more immediate causes of their origin are: 1. Increased vascularity; 2. Obstruction of the vessels by endothelial proliferation in cases of tumors of rapid growth; 3. Thinness of the vascular walls; 4. Regressive metamorphosis of the stroma and secondary alterations in the tension of the interior of the tumor, especially in the case of central formation of cholesteatomata; 5. Mechanical influences before the operation, or even the operation itself. Neoplastic formation of bone in the polypi was observed in three cases. This neoplasm must be regarded as heteroplasia. Central necrosis was observed in two cases. Formation of cysts was observed in only one case, and in that from the blood-vessels. The authors consider that the operative removal of aural polypi must be undertaken without hesitation: 1. As a matter of life and death, when the symptoms indicate an accumulation of pus; 2. In all cases in which a single polypus, or several of them together, have attained so large a size that they are liable to fill the cavities in which they lie, and to give rise to an accumulation of pus with all its accompanying dangers. Polypi that are not quite large enough to hinder a satisfactory exit of pus may experimentally be treated with remedies, among which they place in the front rank absolute alcohol, or solutions of lead acetate, supersaturated. The galvano-cautery they regard as the very best method of after-treatment to prevent relapses, and for the rapid removal of small tumors that could not be reached with the snare. Also for cauterizing cholesteatomatous masses in the tympanum. Also for producing a stiff cicatricial tissue as free from blood-vessels as possible, in the place of a softened and thickened lining of the tympanic cavity that has undergone epidermoidal transformation, and is liable to continue in a chronic inflammatory condition. Also in cases of multiple formation of larger or smaller polypi, whose origin in the deeper-seated portions of the ear is difficult to detect, and in which it

is quite impossible to remove all the roots with the snare. Also in caries with formation of polypi, whenever it is necessary to obtain a satisfactory exit for the pus.

Other Noteworthy Papers.

BOETTCHER.—Cotugno, der Aquæductus vestibuli, und einige neuere Autoren über das häutige Labyrinth. "Arch. f. Ohrenheilk.," xix, 2 and 3.

BRANDEIS, R. C.—Otitis media catarrhalis und objective Geräusche nervösen Ursprungs. "Zeitsch. f. Ohrenheilk.," xii, 1.

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PIERCE, T. M.—Case of extensive disease of the temporal bone, with hernia cerebri. *Ibid.*

URBANTSCHITSCH.—Beobachtung eines Falles von An sthesie der peripheren Chorda tympani Fasern bei Ausl sbarkeit von Geschmacks- und Gef hls-empfindung durch Reizung des Chorda tympani Stammes. "Arch. f. Ohrenheilk.," xix, 2 and 3.

WAGENH USER.—Beitr ge zur Anatomie des kindlichen Schl fenbeines. *Ibid.*

Miscellany.

CASCARA SAGRADA IN CONSTIPATION.—J. Fletcher Horne, F. R. C. S., writes: "*Cascara Sagrada*, *Rhamnus purshiana*, is a small tree indigenous to the Pacific coast of North America. The fluid extract I have used is that prepared by Parke, Davis & Co., Detroit, and procurable of their agents, Messrs. Burgoyne, Burbidges & Co., London. Its use, in my hands, seems to be indicated in almost all cases of constipation, particularly in cases of torpidity of the liver, with scanty dry stools and indigestion. It seems to act as a stimulant to the muscular fibers of the intestines, through its action upon the sympathetic nerve, this increasing the vermicular movements of the intestines, thus resembling *nux vomica*. I have used it in several cases of obstinate constipation with very satisfactory results. I generally give twenty drops three times a day in sweetened water for ten days or a fortnight; and then, gradually reducing this dose, the patient is able to establish a habit of regularity. Given in doses of a teaspoonful, it acts as a gentle purgative, without producing any griping tenesmus or nausea; but its action is slow, and, in this sized dose, seems to lose its good property of curing the constipation. With children, with smaller doses, I have had equally good results."—*British Medical Journal*.

ON PREVENTION OF LACERATION OF THE PERIN EUM.—Mr. Alexander Duke, M. K. Q. C. P. I., Obstetric Physician to Dr. Stevens's Hospital, Dublin, remarks: "The best preventive treatment of laceration that I have found (and which I dare not claim as original, though I find no notice of it in the text-books on midwifery) is this: When I find the head fairly engaged in the pelvis, and advancing with each pain, I take my seat by the patient's bedside, and, having lubricated my left thumb, or the two first fingers of my right hand, I introduce either into the vagina, and, at the onset of a pain, draw back the perin eum firmly, but gently, toward the coccyx, relaxing the tension gradually as the

pain lessens till the next ensues, and so on till I can draw back the perin eum with very slight effort. I thus tire out the muscular structure, and produce sufficient relaxation for the head to pass.

"In most cases so treated there is no danger of the perin eum, but when the pubic arch is narrow (which can be easily determined), I take the additional precaution of raising the patient's left hip and supporting it on a hard pillow, while the shoulders are kept low, fomenting the parts, using inunction of lard or vaselin, and taking particular care to direct the head forward by pressure, with my left hand below the coccyx, or a finger in the rectum, leaving the perin eum untouched. It has always seemed anomalous to me that the perin eum should be expected to dilate on such short notice, namely, 'the process of extension,' while dilatation of the os and cervix occupies such a considerable time, even with the additional help of nature's hydrostatic dilator, viz., the bag of waters.

"The drawing back of the perin eum produces no additional pain to the patient, as it is done during a uterine contraction; and I feel sure that, if nurses and students were educated as to the proper way of preparing the perin eum previous to its distension with the presenting part, we should see and hear less of lacerated perin eum."—*British Medical Journal*.

PRACTICAL PATHOLOGICAL WORK.—Mr. H. A. Reeves, F. R. C. S., Assistant Surgeon to the London Hospital, draws attention to the triple and double staining of tissues and tumors for microscopical purposes. He mentions several new coloring agents. "The new dyes are phloxim and erythrosin. I do not yet know their exact composition, but feel almost sure they are obtained from resorcin, as in many physical and chemical respects they resemble rosin. They stain rapidly and deeply, in weak aqueous solutions, and stand spirit well. Connective substances and the protoplasm of cells are, in rapid staining, preferred by them to nuclei, which, however, stand out on the stained ground-work very clearly. Phloxim is the more beautiful and pleasant color to work with. Both are soluble in water or spirit, and weak solutions stain quickly. If sections be placed in weak solutions for several hours, the nuclei often take on the stain. Phloxim and erythrosin, as supplied to me, are darkish red powders by reflected light, the former having a faint purplish-crimson color, and the color of the solutions in a test tube, i. e., in transmitted light, will vary according to the strength. Any of the dyes herein mentioned may be obtained direct from the agent of the Badesche Anilin Fabrik, 22 Bush Lane, E. C., or from Messrs. Wright, Layman & Umney, or in small quantities from Mr. Cooper, chemist, Oxford Street, W. Messrs. Brooks, Simpson & Spiller, Broad Street, E. C., also keep several of them. Murexide has—so far as I have been able to find—not yet been used in microscopy. It is given up by the dyers in favor of rosanilin, and is consequently not in demand, and therefore not easily procured. It is a brownish-red powder, and very slightly soluble in cold water, not soluble in spirit, but readily soluble in boiling water. On cooling and filtering, the sections are immersed for five or ten minutes, when it will be found to furnish a good ground stain for double dyeing. With acetate of zinc, murexide gives a yellow stain. Maroon, phosphine, cerise, and mauve are all useful and unused colors, phosphine yielding a good ground stain of a rich golden yellow, and may be used with advantage in double staining. The rest resemble most of the other anilines in picking out the nuclei, but they also stain the other structures. Dilute aqueous or alcoholic solutions stain rapidly, and may be fixed. Induline is also a new aniline color, and may be used as above. It is a dark powder, and gives an agreeable pale-bluish purple stain; and, if used after carmine or picrocarmine, the cell-body and intercellular substance will be preferred by the induline, and the nuclei connective fibers by the others. It dissolves in warm water or dilute alcohol." For triple staining, Mr. Reeves has had the best results when using methylanilin, violet and iodine, and malachite or methyl green combined. For double staining he employs roseine and green."—*British Medical Journal*.

A NOVEL AGENT IN THE RADICAL CURE OF HYDROCELE.—J. E. W. Walker, M. R. C. S. E., L. S. A., late H. M. Fifty-fifth Regiment, writes: "In bringing this matter before the profession, I feel bound to admit that, but for a curious accidental circumstance, the agent might never

have presented itself to my notice. In the year 1875 I proposed to operate upon a patient, aged sixty-five, for the radical cure of hydrocele of the tunica vaginalis. The disease had existed for about ten years, and had been repeatedly emptied by other surgeons. At this time I removed, by the trocar and cannula, about twelve ounces of serum, and, by accident, took from my pocket a bottle containing about two drachms of liquor ergotæ (Battley) in the place of the same quantity of tincture of iodine, which it was my intention to throw into the cavity. On my return home, I discovered the mistake, and watched the patient for some hours at intervals. No inflammatory state occurred, and there was entire absence of pain, so that I allowed my patient to return to his ordinary occupation the next morning. To the present time there has been no return of the abnormal secretion. I have since, on two occasions, used the same plan with perfect success, and I attribute the cure to a specific action, exerted by ergot, which re-establishes the balance between secretion and absorption."—*British Medical Journal*.

PICRIC ACID IN ERYSIPELAS.—Dr. Flaminio Tassi, of Siena, has used a saturated solution of picric acid in the treatment of four cases of erysipelas. It was painted on with a brush over the inflamed part. It appears to have a beneficial action, but the number of cases is too small to enable any definite opinion as to its therapeutical value to be formed as yet.—*Practitioner*.

EMERGENCY LECTURES IN BOSTON.—It is announced by a correspondent of the "Boston Medical and Surgical Journal" that a course of "emergency lectures" is soon to be given in that city, "for gentlemen only." Among the emergencies mentioned by the writer are "singultus, delirium tremens, alcoholic coma, orchitis, adenitis, cystitis, retention, and catheterization"!

THE BOSTON SOCIETY FOR MEDICAL OBSERVATION.—At the annual meeting, held April 2, 1883, the following gentlemen were elected officers; Secretary, Dr. C. H. Williams; Treasurer, Dr. C. M. Green; Librarian, Dr. George Stedman; Pamphlet Librarian, Dr. W. J. Otis; Committee on Admission, Dr. W. L. Richardson, Dr. F. C. Shattuck, Dr. A. T. Cabot, and Dr. C. H. Williams *ex officio*.

THE LONDON WATER SUPPLY.—In a recent number of the "British Medical Journal" Dr. Percy F. Frankland remarks, with regard to a table showing the proportion of organic impurity present in Thames water, as delivered in London year by year from 1868 to 1881: "This table clearly and irresistibly attests the general deterioration which has taken place in the average quality of the Thames water delivered in London. It must further be borne in mind that this deterioration has gone on in spite of both greater storage capacity and much improved filtration on the part of the companies. What is here stated of the Thames applies equally, but in a less degree, to the water of the Lea. Since this, then, is the condition of the water which the companies have the monopoly to purvey, too much caution can not be exercised in accepting the wholly unofficial reports which are now made in the interests of the water companies, and which are calculated to allay the just cause of dissatisfaction excited by the official and impartial examination made by the Local Government Board in the interests of the public. It should not be forgotten that, even when their supplies were drawn from the grossly polluted lower Thames, the water companies were able to procure from scientific experts reports of the perfect wholesomeness and unimpeachable purity of their water. Thus, reporting to the Southwark Company upon the quality of Thames water between Teddington and Chelsea, three chemists pronounced the water to be 'as perfectly harmless as any spring water of the purest kind used in common life; indeed, there is probably not a spring, with the exception of Malvern and one or two more, which is so pure as the Thames water.' Again, at a more recent date, the Thames water at Battersea, then in close proximity to the sewer outfall, was described as 'good, wholesome, and proper, free from any noxious impregnation of animal matter, and well adapted to dietetic, domestic, and manufacturing uses. Until the year 1852, the inhabitants of London were content, or rather compelled, to drink the water of the Thames drawn from the river opposite Hungerford Market, and all legislation intended to alter the then existing state of things was strenuously opposed by

the water companies. The consternation caused by the terrible epidemic of cholera in 1849 so aroused public opinion that an alteration of the source of supply was insisted upon. It is to be hoped that the public will not require an equally severe lesson before they insist that the Thames and the Lea shall be altogether abandoned for the purpose of furnishing water to London, and that the day may not be far distant when the whole of the metropolis shall enjoy a supply of water as pure as that which is now given to a limited portion of the southeastern district only."

NOTWITHSTANDING all the touching and beautiful talk in the New York County and State medical societies in regard to the matter of "humanity" and the "elevation of the standing of the profession," it would at first sight seem rather a significant fact that the new code agitation was entirely inaugurated by specialists, and that every man who has taken at all an active part in securing its adoption and preventing its repeal is a specialist. It is probably, however, only a curious coincidence that the specialists are the ones who must necessarily derive the largest amount of pecuniary benefit from consulting with all "legally qualified practitioners of medicine." Among legally qualified practitioners our new code friends in New York will, no doubt, be much pleased to learn that they may now have the opportunity of meeting in consultation the noble and good Dr. Buchanan, lately of Philadelphia, who, we are informed on excellent authority, is now a registered physician in their city, and who, having graduated from Moyamensing, as well as a medical college, must have had special opportunities of study and experience, which the profession and public ought not to be slow in availing themselves of. There is one point, involving to some extent the matter of consistency, which the ordinary Philistine medical mind is not quite capable of satisfactorily comprehending. How is it that the very gentlemen who are the most energetic and persistent supporters of the new code are also those who are most clamorous for the higher education of the profession, and are the leaders in establishing innumerable post-graduate courses to this end in every department of medicine and surgery, when by this same new code any Tom, Dick, or Harry who can buy, steal, or study six weeks for a diploma is placed on the same level as a graduate of Harvard or the University of Pennsylvania, who has spent a couple of years or more in the hospitals after receiving his degree?—*Boston Medical and Surgical Journal*.

THE University of Aberdeen lately conferred the degree of LL. D. on R. Farquharson, M. D., and James Ross, M. D.

THE second congress of the Gesellschaft für innere Medicin will be held at Wiesbaden on April 17th.

A TESTIMONIAL TO MR. ERICHSEN.—A bust of Mr. John Eric Erichsen was recently presented to University College, London, at a large public meeting held in the botanical theatre of the college, as a memorial of Mr. Erichsen's services to the college and to surgery.

A COLLEGE OF MIDWIFERY.—Under this name a school has been started in New York for the instruction of midwives. Each session comprises a three months' course, four evening lectures being given each week, in addition to demonstrations, recitations, and bedside teaching. The faculty consists of Dr. Paul F. Mundé and Dr. Benjamin F. Dawson, censors, and Dr. James O'Reilly, Dr. John Alsdorf, Dr. Thomas E. Wilcox, and Dr. Jacob Hartmann, instructors. A diploma is to be given after satisfactory examination.

THE OLEATES.—Oleates are not to be mixed with vaseline or any petroleum products, as the latter are not absorbed by the skin and retard the action of the oleates. Mineral fats have no affinity for animal tissues, while lard and other animal fats are rapidly absorbed by the skin of the human body.—*Weekly Medical Review*.

A GOVERNMENT EXPERIMENTAL LABORATORY.—The newspapers announce that the Department of Agriculture has leased a piece of ground in the neighborhood of Washington for the purpose of establishing a laboratory for the experimental investigation of the infectious diseases of domestic animals.

INTERFERENCE WITH THE HEALTH LAWS.—A bill is said to have been brought before the State Legislature, the intent of which is to prohibit

Boards of Health from forbidding the use of tile pipes in making sewer connections. It is now discretionary with such boards to allow or prevent the use of pipes of that material, according to the circumstances of individual cases, and any attempt to hamper the exercise of such discretion on the part of sanitary authorities should meet with vigorous opposition.

A NEW GERMAN DISPENSARY.—A new dispensary has been organized, as an additional means of meeting the wants of the leased German population of the eastern part of New York. It is expected that the work of the new dispensary will begin about the 1st of May. Among the physicians who are connected with the institution are Dr. F. W. Lilienthal, Dr. C. A. von Ramdohr, Dr. G. W. Rachel, Dr. R. O. Born, Dr. W. C. Ayres, Dr. G. C. Stiebling, Dr. J. H. Tyndale, Dr. S. Kohn, and Dr. C. E. Denhard. It is understood that the dispensary will be established at No. 411 Sixth Street.

JEFFERSON MEDICAL COLLEGE.—The annual commencement of the Jefferson Medical College, of Philadelphia, was held on Monday last. The graduating class is stated to have numbered nearly two hundred.

PERSONAL ITEMS.—Dr. L. T. Day, for the past year house physician at the New Haven Hospital, has resigned, and will be succeeded by Dr. Gillon, a graduate from the University Medical College of this city. — Dr. Taylor, formerly of the Pennsylvania Hospital, has been appointed resident surgeon of the University Hospital, Philadelphia, for the month of April.

DEATH OF DR. D. O. FARRAND, OF DETROIT.—Twenty years ago Dr. Farrand, then an undergraduate, was known to his fellow-pupils at the College of Physicians and Surgeons, in this city, as one of the most promising and estimable of their number. After taking his degree, he entered the medical corps of the army, in which he served until 1866, when he began private practice in Detroit. His career in that city has been in the highest degree creditable, and, we are glad to learn, peculiarly successful. We are pained at the intelligence that he died, on the 18th ult., of a meningial affection following an attack of otitis.

DEATH OF DR. NATHANIEL LOW.—Dr. Nathaniel Low, of Dover, N. H., died on the 2d instant, at the family residence, Bellamy, two miles from the city, at the age of eighty-one. Dr. Low was graduated from Dartmouth Medical College in 1813, and began the practice of his profession in South Berwick, Me., his native place. In 1831, after six years of political life, he settled in Dover, where he practiced until his last illness, which was somewhat protracted. He was a Fellow of the New Hampshire State Medical Society and a member of the Strafford District Medical Society.

DEATH OF SURGEON JOSEPH H. BAILEY, U. S. A.—Surgeon Joseph H. Bailey, U. S. Army (retired), died last Sunday at Kent Cliffs, Putnam County, N. Y., in his eightieth year. Dr. Bailey was a native of this State, from which he was appointed to the medical corps of the army in 1834. He attained the rank of captain in 1839, and was retired in 1862.

THE LATE SURGEON KEENEY, U. S. A.—A recent number of the San Francisco "Evening Bulletin" contains the following tribute to the memory of this officer, written by Colonel Mendell, of the engineers: "By the death of Surgeon C. C. Keeney the army and the country are deprived of the services of one of their most valuable officers. In intellect and in physical qualities, which are essential to afford a field of action for the intellect, he was, until his prostration by disease, the peer of any and all. Entering the service in 1842, he passed through all the grades of the medical corps, holding at his death the commission of colonel. In forty years of duty he never asked for or received the indulgence of a leave of absence. He served professionally through the Mexican war, from its beginning to the end, leaving Mexico after peace was declared. During the great civil war he served in the first campaigns of the Army of the Potomac, and afterward in organizing and in inspecting hospitals in and about Washington and over the upper Mississippi Valley. He was forced to relinquish this duty by an attack of total blindness, induced by the exposure and unremitting labor incident to his work. This attack confined him to a dark room in

Chicago for six months, with little or no improvement in his condition. Pronounced by a board of surgeons to be in a hopeless condition, he returned to his home in San Francisco, himself the only one confident of a recovery. This recovery occurred, and, if a physical change ever results from a resolute and faithful condition of mind in the patient, his recovery may have been in part due to the strength of his character. Since 1864 he has been stationed in this city, attached to the headquarters of the department, of which he was long, and at the time of his death, Medical Director, having previously been for some years attending surgeon. Those who had the benefit of his attentions in the latter capacity can never forget the quick perception which diagnosed a disease, and the professional intelligence and knowledge which alleviated suffering. His conscientious attention to the needs of the sick will long be gratefully remembered by those who were its recipients. He was full of military spirit and pride in the service. Nothing that concerned the interests of the army was indifferent to him. His hours of recreation were passed in literary pursuits. Those who were familiarly admitted to his home were accustomed to find him in leisure hours in his library, where he was surrounded by a choice selection of books, covering the fields of literature, history, and science."

ARMY INTELLIGENCE.—*Official List of Changes of Stations and Duties of Officers of the Medical Department, United States Army, from March 24, 1883, to March 31, 1883.*—BARNETT, RICHARDS, Captain and Assistant Surgeon. To proceed to Fort Adams, Rhode Island, and report to the commanding officer for duty at that post. Par. 1, S. O. 51, Department of the East, March 28, 1883. — CRONKHITE, HENRY M., Captain and Assistant Surgeon. Relieved from duty at Fort McKinney, Wyoming Territory, and assigned to duty as Post Surgeon at Fort Fred Steele, Wyoming Territory. S. O. 31, Department of the Platte, March 22, 1883. — DE LOFFRE, AUGUSTUS A., Captain and Assistant Surgeon. Granted leave of absence for three months. Par. 3, S. O. 71, A. G. O., March 27, 1883. — LORING, L. Y., Captain and Assistant Surgeon. To proceed without delay to Fort Schuyler, New York Harbor, and report to the commanding officer for duty as Post Surgeon. Par. 2, S. O. 51, Department of the East, March 28, 1883. — MOSELEY, EDWARD B., Captain and Assistant Surgeon. To report in person to the president of the Army Medical Examining Board in New York City for examination for promotion, and, upon completion, to return to proper station. Par. 3, S. O. 70, A. G. O., March 26, 1883. — PAULDING, H. O., Captain and Assistant Surgeon. Relieved from duty at Fort Laramie, Wyoming Territory, and assigned to duty at Fort Sydney, Nebraska. S. O. 31, Department of the Platte, March 22, 1883. — SKINNER, JOHN O., Captain and Assistant Surgeon. To report in person to the president of the Army Medical Examining Board in New York City for examination for promotion, and, upon completion, to return to proper station. Par. 3, S. O. 70, A. G. O., March 26, 1883. — TAYLOR, MARCUS E., Captain and Assistant Surgeon. To report in person to the president of the Army Medical Examining Board in New York City for examination for promotion, and, upon completion, to return to proper station. Par. 3, S. O. 70, A. G. O., March 26, 1883. — TURRILL, HENRY S., Captain and Assistant Surgeon. Relieved from duty at Fort Fred Steele, Wyoming Territory, and assigned to duty as Post Surgeon at Fort McKinney, Wyoming Territory. S. O. 31, Department of the Platte, March 22, 1883.

NAVAL INTELLIGENCE.—Passed Assistant Surgeon W. H. Crawford has been ordered to the Pinta, which vessel, after being inspected at Hampton Roads, will proceed to Alaska, touching at San Francisco. — Passed Assistant Surgeon F. H. Terrell has been granted leave of absence for one year from April 1st. — Six months' sick leave has been granted to Surgeon John W. Coles. — Passed Assistant Surgeon B. F. Rogers has been detached from the Richmond, of the Asiatic squadron, and ordered temporarily to the Monocacy, which left Nagasaki January 31st for Amoy. — For the foregoing items we are indebted to the "Army and Navy Journal." — The Naval Medical Board, consisting of Medical Director F. M. Gunnell, Medical Director W. J. Hood, and Medical Inspector David Kindleberger, held its first meeting at the Navy Department, in Washington, on the 2d instant.

Lectures and Addresses.

WILLIAM HOLME VAN BUREN, M. D.,
LL. D. (YALE).

A MEMORIAL ADDRESS,

READ BEFORE THE NEW YORK ACADEMY OF MEDICINE, APRIL
5, 1883,

By EDWARD L. KEYES, M. D.

MR. PRESIDENT AND FELLOWS OF THE ACADEMY: I am here in response to your request to address to you to-night some words in memory of your late associate, my dead friend and master, Dr. Van Buren.

I accept the task with hesitancy, fearing lest my poor powers should prove inadequate to detail his worth, or that my zeal may lead me into such personal expressions of admiration as may fail to be appreciated by or acceptable to those among you who have known him less well than I. For he was to me a kind father, a patient guide, directing my uncertain efforts from the first day I entered the paths of medical investigation. I did what I could in return by sustaining his faltering footsteps as they tottered toward the tomb. And the spirit in which I attempt to perform this last office in his honor must atone for all defects in its execution.

"May the sod rest lightly over him."

William H. Van Buren, M. D., LL. D. (Yale), upon the morning of the 25th of March, 1883, terminated a career of no ordinary brilliancy, and left a place in the ranks of the medical profession which will probably long remain unfilled.

Born in Philadelphia, April 5, 1819, to-day is the anniversary of his appearance on earth. At his death he had not completed his sixty-fourth year. He died, as he lived, gracefully, in no unbecoming haste, with entire dignity. He delivered his last lecture to the class at the Bellevue Hospital Medical College on the 6th of December, 1882, a little more than three months before his death, and during these three months his failure was so gradual that those who watched at his bedside found difficulty in deciding at just what moments the changes came, although the general deterioration was constantly evident.

During the mild delirium of fever incident to the inflammatory process taking place about the clot in his brain, he was never little, never rude, never vulgar. Courtesy and dignity marked his last utterances. He died, as he lived, a gentleman. The burden of the delirious wanderings of his mind, as expressed in his speech, was a desire to get away, to go somewhere. He finally started on the expected journey on Good Friday evening, and from that moment until the journey ended, on Easter morning, his body and mind were in perfect peace.

Although cut off before finishing the natural period allowed to man, he had improved his opportunities, and he left behind him a reputation surpassed by no one for high refinement as a gentleman, classical polish as a scholar, unequaled grace as an operator, clearness, force, elegance as a

lecturer, profound judgment as a physician. He has left his mark upon the profession he adorned, and has elevated its tone and its dignity by his uncompromising exaction of respect for the science and art in which he dealt—a respect which he insisted upon from all who approached him in his consulting-room or elsewhere.

He doubtless inherited a fondness for medical research from two of his ancestors, his grandfather and great-grandfather, both of whom were physicians.

His entire education up to graduation was conducted in Philadelphia, the city of his birth, with the exception of something more than two years passed at Yale College. He entered that institution with the class of 1838, but during Junior year, on account of some boisterous demonstrations to which he was a party, the college saw fit to drop him from the rolls. Yet that this incident did not obscure his merits from the appreciation of the Faculty is evidenced by the fact that the same institution tendered him, in 1866, the academic degree A. M., and in 1878 decorated him with its highest honorary title, LL. D., thus recognizing his prominent position in the community and his scholarly attainments.

After leaving Yale, he entered the medical class of the University of Pennsylvania, and finished his studies there before reaching the age at which graduation was allowable. Before graduating, therefore, he went to Paris with Dr. Harlan, of Philadelphia, and remained in that city at his medical studies for eighteen months. During his Parisian student days he formed a warm attachment for Gueneau de Mussy, which endured through life. He served on the house staff in La Charité Hospital under the great Velpeau. In Paris he first met the late Valentine Mott, who afterward became his father-in-law.

Returning to America, he graduated in medicine from the University of Pennsylvania in 1840, choosing as the subject of his thesis of graduation the starch and dextrin bandage, a knowledge of which he had brought home from Paris. Thus early in his career did he manifest his mental scope in recognizing the value of the immovable apparatus many years before its worth was generally appreciated by the profession.

This essay possessed such evident merit that the Faculty took charge of its publication (an unusual honor), and appointed a time and place where the young doctor should give a public demonstration of the application of the bandage. This was done by Dr. Van Buren, the assemblage addressed being, as he has recently stated, the largest professional gathering before which he ever appeared.

After graduation, Van Buren entered the army, passing first in a competitive examination, and thus ranking the late Surgeon-General Joseph K. Barnes (whose death to-day is announced in the evening papers), and who passed with him, so that, had he remained in the Government service, it is fair to believe that he would have reached the highest medical position in its gift. Indeed, this position was offered him during the war by Lincoln, but for various reasons declined, whereupon he was asked to name a candidate.

He served in the army under Generals Wool and Har-

ney in Florida, and for a short time on the Canadian border. In Florida his health broke down under intense malarial poisoning, and the seeds of certain physical disabilities were sown from the effects of which he never entirely recovered. In 1844 he was stationed in the meteorological department at Washington under Surgeon-General Lawson.

In 1845 he came to New York to assume the duties of prosector to the chair of surgery in the medical department of the University of New York under Dr. Valentine Mott.

In this medical school he remained doing active duty as an organizer and operator in the Mott Clinique, and, after the year 1852, as professor of anatomy, a position which he retained until the burning of the college building in Fourteenth Street in 1865. In this fire was burned his valuable collection (of plates, instruments, and specimens) appertaining to the anatomical chair.

After this disaster Dr. Van Buren declined to go on with the school unless the professorial staff was reorganized (he desired to change his anatomical for surgical teaching), and unless a fine building was erected in East Twenty-sixth Street, opposite and in competition with the already flourishing Bellevue Hospital Medical College, and capable of enjoying like privileges in the Bellevue Hospital. These counsels—at a later period adopted in all their essential features—were disregarded at the time, and Dr. Van Buren resigned.

In 1868 he was elected to a professorship in the Bellevue Hospital Medical College, and as professor of the science and art of surgery in that institution he lectured up to within a few months of his death.

He was appointed one of the surgeons to the Bellevue Hospital at its organization in 1847, and in 1852 was made surgeon, and afterward consulting surgeon, to the New York Hospital. Later he became surgeon, and then consulting surgeon, to St. Vincent's Hospital, and consulting surgeon to the State Woman's, the Charity, and the Presbyterian Hospitals. Among the positions of honor which he filled may be mentioned the vice-presidency of the New York Academy of Medicine in 1859, the presidency of the Pathological Society, and the position of consulting surgeon to a great number of the most prominent organized medical charities in the city. In 1867 he was elected corresponding member of the Société de Chirurgie of Paris, an honor up to that date conferred upon only one other American. In 1879 he was one of a few surgeons who organized the New York Surgical Society.

Early in his professional life he began to turn his attention toward writing. In 1854 he translated Morel's "Histology," showing at that early date his keen appreciation of the needs of surgery, and its dependence, in a prognostic way at least, upon histological research. His next effort was the translation of Bernard and Huette's "Operative Surgery," a work which was furnished by the United States Government to the army surgeons during the late war.

In 1865 he published some surgical essays in book form as "Contributions to Practical Surgery," one of these essays relating to a successful case of ovariectomy, which he performed during the days when this operation was almost in

its infancy, and before it had been absorbed into the domain of gynæcological specialism.

His lectures on "Diseases of the Rectum" appeared in book form in 1870, a second and much ampler edition of the same work in 1882. In 1874 he appeared jointly with his junior associate in a text-book on "Genito-Urinary Surgery."

In 1876 he read an able article on "Aneurysm" before the International Medical Congress assembled in Philadelphia, while his most recent essay on "Inflammation," in Ashhurst's "International Encyclopædia of Surgery" in 1881, is one of the ablest efforts which have appeared in print from his pen.

Up to the time of his death he had in contemplation and preparation a series of essays on the "Principles of Surgery," which he hoped to complete and give to the world.

During his entire medical life he frequently appeared in the medical periodicals of the day in essays on surgical subjects, marked by their practical character, the weight of the lesson they enforced, and their terseness, as well as elegance of expression.

During his early professional life he was a zealous and active surgeon in all general branches. He was particularly attentive to hospital and clinical duties, to medical teaching and medical society work. His name is attached to a special mode of amputating at the hip joint, and many general surgical operations have received useful modifications at his hands, while a few instruments bear his name.

As his professional success rendered necessary a selection of the kind of work he should do, he gradually came to identify himself with genito-urinary and rectal surgery, falling into these channels partly from inclination and partly by opportunity. He never considered himself a specialist, on the whole rather resenting the idea, preferring to rank as a general surgeon. His perfection of certain urethral instruments remains as one of his triumphs.

His connection with the Sanitary Commission, of which he was one of the founders, is a matter of history. He served faithfully on the executive committee of this organization during the war, and added largely to its efficiency by his ability as an organizer and his power of getting good work out of those under his orders. It was during the performance of duties connected with this commission that he acquired typhus fever, a malady which nearly terminated his career in 1864 before he was fairly ripe.

From the shock of this malady, followed as it shortly was by the death of his only son, he never fully rallied in energy and nervous vigor. While his judgment remained unimpaired and his intellectual qualities improved, his desire for active physical work diminished at a continuous pace until the year of his death. His chief delight became the study of trees and flowers and the perfection of his country place at Shrewsbury, where he spent half of each week, winter and summer.

In 1842 he married Louisa, daughter of the late Valentine Mott, who, with two married daughters, survives him.

Dr. Van Buren was a man full of force, full of kindness, but a martyr to the gout. As a master, he was at times ex-

acting, but always just; as a friend, he was surpassed by none. When found overworked, particularly if the gout was upon him, he was apt to be considered haughty and imperious; but his gentleness and refinement were always obvious to those who knew him best, shining out through the mists of any atmosphere in which he was pleased temporarily to shroud himself.

He was unswerving in his demands upon the respect of those about him, and in all his actions, public or private, the elements in his character which were most marked were those of breadth and grandeur. Littleness and meanness were not to be found in his composition. His friends loved, his enemies feared him; all respected, all admired him. He was deliberate in the selection of those whom he should trust, but his confidence once given was final, his trust was "all in all or not at all," and his judgment in the choice of friends was not often at fault.

Dignity and grace vied with each other to find expression in his commanding figure—a figure rendered all the more imposing by his military training. The charm of his personal presence was equally apparent under all circumstances before men singly or collectively. The gravity of his counsel and weight of his judgment were most prized by his peers in consultation. The patient welcomed his coming with gladness, and without a murmur, in that entire confidence born of faith, yielded into his hands the issues of life and of death.

The same personal magnetism was evident in his intercourse with students. Who can forget the swing of his supple figure as he entered the lecture-room of the old University in the glorious days of his pride, and the princely bow with which he saluted his class as the dome of the amphitheatre resounded in responsive echo to their acclamations of appreciative reception. His later efforts at Bellevue were none the less gracious, and his white head and beard and the motions of his heavier frame made up in dignity what they lacked in fire.

No more touching evidence of the hold he maintained upon those who had once felt his influence could have been offered than the mute eloquence of the tears of his old servants of by-gone years as they crowded about his remains for a last look at him whom they had loved.

Born a Protestant, he became a Roman Catholic by conviction early in his professional life, and for many years before his death he was devout in his observance of the duties imposed by that Church. Comforted by all the consolations the Church could afford, and fortified by its last sacred rites, in the calm glory of the Easter dawn his soul sought eternity—fit occasion for such a flight. Without a struggle he passed peacefully away; and let us from this scientific altar join our prayer to those already pronounced by the Church over his remains, in the aspiration that his grand old soul, through the mercy of God, may rest in peace.

BELLEVUE HOSPITAL MEDICAL COLLEGE.—At the annual meeting of the Faculty of the Bellevue Hospital Medical College, held April 3, 1883, Dr. Frederic S. Dennis was appointed Professor of Principles and Practice of Surgery and Clinical Surgery to fill the vacancy caused by the death of the late Professor Van Buren.

Original Communications.

MEDICAL ETHICS AND ETIQUETTE.

COMMENTARIES ON THE NATIONAL CODE OF ETHICS.

By AUSTIN FLINT, M. D.

Fifth Article.

SECTION 8. Should an irreconcilable diversity of opinion occur when several physicians are called upon to consult together, the opinion of the majority should be considered as decisive; but if the numbers be equal on each side, then the decision should rest with the attending physician. It may, moreover, sometimes happen that two physicians can not agree in their views of the nature of a case and the treatment to be pursued. This is a circumstance much to be deplored, and should always be avoided, if possible, by mutual concessions, as far as they can be justified by a conscientious regard for the dictates of judgment. But, in the event of its occurrence, a third physician should, if practicable, be called to act as umpire; and, if circumstances prevent the adoption of this course, it must be left to the patient to select the physician in whom he is most willing to confide. But, as every physician relies upon the rectitude of his judgment, he should, when left in the minority, politely and consistently retire from any further deliberation in the consultation, or participation in the management of the case.

SECTION 9. As circumstances sometimes occur to render a *special consultation* desirable, when the continued attendance of two physicians might be objectionable to the patient, the member of the faculty whose assistance is required in such cases should sedulously guard against all future unsolicited attendance. As such consultations require an extraordinary portion both of time and attention, at least a double honorarium may be reasonably expected.

The disagreement of doctors has long been proverbial. Without entering into any discussion of the grounds for the popular impression that physicians are more apt to disagree than those engaged in other pursuits, it is certain that in medical consultations a diversity of opinions calling for the measures which are enjoined in the ethical code is extremely rare. The writer of these commentaries, during a long experience, has known of but very few instances. In the event of a diversity of opinion relating to the nature of the case and the treatment to be pursued, the "good of the patient" is generally better consulted by mutual concessions than by resorting to the measures just alluded to. The concessions should be mutual; that is, neither the attending nor the consulting physician has a right to expect that on his side nothing is to be conceded. The consulting physician is to consider that the attending physician has had the advantage of having observed the case from the commencement, and generally, also, of a better acquaintance with the previous history of the patient. On the other hand, it often happens that the attending physician is bound to recognize a larger experience on the side of the consulting physician, and, perhaps, the advantage of his having given special study to the disease from which the patient suffers. These are grounds for concession on either side. If, however, a diversity of opinion be so great as not to be reconciled by mutual concessions, to agree seemingly, but not in

reality, would plainly be in violation of truth and justice. The measures inculcated by the code, under these circumstances, must commend themselves as proper, in view of the feelings and interests of all concerned.

Whether consultations are to be repeated or not, and how frequently they are to be repeated, should be determined by the circumstances in particular cases. When desired by patients or their friends, it is unwise for the physician in charge to oppose their repetition on the ground that they are not necessary. Whether necessary or not, patients or their friends are entitled to have their wishes gratified in this regard, especially if the additional expense be understood. If their wishes be thwarted by the physician in charge, he may afterward have occasion for regrets. The consulting physician has his rights in this matter, inasmuch as he has assumed a part of the responsibility of the case. It is not, therefore, improper for him, in certain cases, to request additional consultations. On the other hand, he may be invited to repeat the consultation merely as an expression of politeness or respect, and it may be becoming in him to say that he considers a repetition unnecessary. In general, the propriety of the rule respecting "unsolicited attendance" is sufficiently obvious. The exceptional instances are those in which the consulting physician feels unwilling to assume a share of the responsibility without further observation, and those in which he has reason to believe that the limited means of the patient constitute the sole ground for not soliciting a continuance of his services.

There are some points relating to the ethics and etiquette of consultations which are not touched upon in the code. One of these is the duty of a consulting physician who may be asked to take the place of the attending physician in a case while it is in progress. It may happen that there is dissatisfaction with the services of the attending physician, of which the consulting physician may not have been aware, and it is proposed that the former relinquish the case into the hands of the latter. This transfer of a case is justifiable on but one ground—namely, that it is in accordance with the wishes of the attending physician. The consulting physician should satisfy himself on this score. It is not enough that the attending physician consent. He will, of course, do so if requested. If not in accordance with his wishes, the transfer should be positively declined by the consulting physician.

Another point relates to subsequent attendance by the consulting physician. After a case is ended, in another illness the patient may request his services as an attending physician. There may be exceptional instances, but, as a rule, such a request should be declined. If acceded to, it should be after a full understanding with the physician previously in attendance. This and the preceding rule are essential in order that consultations may be held without risk of injury to the feelings and interests of attending physicians. A physician in consultation, if actuated by proper delicacy and a sense of honor, will, of course, sedulously guard against the possibility of his services being preferred to those of the attending physician.

Another point may be referred to. It sometimes hap-

pens that a change of an attending physician is made while another physician is associated in consultation. Shall the latter remain in consultation with the successor of the former? As a rule, certainly not. If the change has been made on account of dissatisfaction with the medical treatment, the consulting physician is as responsible for this as the attending physician, and he should decline to remain in consultation. If other reasons have led to the change, there are obligations of courtesy which are not to be ignored. There should be a full understanding with the attending physician who is superseded. The "good of the patient" is, of course, a primary consideration. The action must be determined by the circumstances proper to each case.

There may be circumstances which should properly lead a consulting physician to decline further association with an attending physician, although no disagreement in consultation had occurred. If the attending physician fail to carry out measures agreed upon, either intentionally or from inefficiency, it is not just for the consulting physician to be held to an equal responsibility in the case. It is the duty of an attending physician to carry out faithfully the course of treatment decided upon, and, if he persistently fail in so doing, the consulting physician is justified in declining to be longer associated with him.

ART. V.—*Duties of Physicians in Cases of Interference.*

SECTION 1. Medicine is a liberal profession, and those admitted into its ranks should found their expectations of practice upon the extent of their qualifications, not on intrigue or artifice.

SECTION 2. A physician, in his intercourse with a patient under the care of another practitioner, should observe the strictest caution and reserve. No meddling inquiries should be made—no disingenuous hints given relative to the nature and treatment of his disorder; nor any course of conduct pursued that may directly or indirectly tend to diminish the trust reposed in the physician employed.

SECTION 3. The same circumspection and reserve should be observed when, from motives of business or friendship, a physician is prompted to visit an individual who is under the direction of another practitioner. Indeed, such visits should be avoided, except under peculiar circumstances; and, when they are made, no particular inquiries should be instituted relative to the nature of the disease or the remedies employed, but the topics of conversation should be as foreign to the case as circumstances will admit.

SECTION 4. A physician ought not to take charge of or prescribe for a patient who has recently been under the care of another member of the faculty in the same illness, except in cases of sudden emergency, or in consultation with the physician previously in attendance, or when the latter has relinquished the case, or been regularly notified that his services are no longer desired. Under such circumstances, no unjust and illiberal insinuations should be thrown out in relation to the conduct or practice previously pursued, which should be justified as far as candor and regard for truth and probity will permit; for it often happens that patients become dissatisfied when they do not experience immediate relief, and, as many diseases are naturally protracted, the want of success, in the first stage of treatment, affords no evidence of a lack of professional knowledge and skill.

SECTION 5. When a physician is called to an urgent case, because the family attendant is not at hand, he ought, unless his

assistance in consultation be desired, to resign the care of the patient to the latter immediately on his arrival.

SECTION 6. It often happens in cases of sudden illness, or of recent accidents and injuries, owing to the alarm and anxiety of friends, that a number of physicians are simultaneously sent for. Under these circumstances, courtesy should assign the patient to the first who arrives, who should select from those present any additional assistance that he may deem necessary. In all such cases, however, the practitioner who officiates should request the family physician, if there be one, to be called, and, unless his further attendance be requested, should resign the case to the latter on his arrival.

SECTION 7. When a physician is called to the patient of another practitioner, in consequence of the sickness or absence of the latter, he ought, on the return or recovery of the regular attendant, and with the consent of the patient, to surrender the case.

[The expression, "patient of another practitioner," is understood to mean a patient who may have been under the charge of another practitioner at the time of the attack of sickness, or departure from home of the latter, or who may have called for his attendance during his absence or sickness, or in any other manner given it to be understood that he regarded the said physician as his regular medical attendant.]

SECTION 8. A physician, when visiting a sick person in the country, may be desired to see a neighboring patient who is under the regular direction of another physician, in consequence of some sudden change or aggravation of symptoms. The conduct to be pursued on such an occasion is to give advice adapted to present circumstances; to interfere no further than is absolutely necessary with the general plan of treatment; to assume no future direction, unless it be expressly desired; and, in this last case, to request an immediate consultation with the practitioner previously employed.

SECTION 10. When a physician who has been engaged to attend a case of midwifery is absent, and another is sent for, if delivery is accomplished during the attendance of the latter, he is entitled to the fee, but should resign the patient to the practitioner first engaged.

The foregoing sections of the code embrace points in ethics and etiquette the propriety and importance of which no member of the medical profession will undertake to deny. Their observance is essential to the harmony, good fellowship, and mutual co-operation of practitioners of medicine, thereby contributing to the honorable character of the profession, to public confidence in regard to it, and to its usefulness in the cause of humanity. The question, however, may be raised, Is it necessary to embody these points in ethics and etiquette in formal rules; that is, would not physicians regulate their conduct equally well without the latter? The affirmative answer to this question would imply that all those admitted to the ranks of the medical profession found "their expectations of practice upon the extent of their qualifications, and not on intrigue or artifice." No one will venture to claim for all members of the profession that purity and high moral tone which are implied in the affirmative answer to the question. It must be admitted that these rules are not infrequently violated. Does it follow that the rules are useless? Certainly not. The fact only proves that knowledge of rules does not always secure their observance. This is true, not alone in medical ethics, but in theology, law, and every department of morals. That prescribed rules of medical ethics influence more or less the

conduct of physicians can not be doubted. This is true as regards other duties, else, wherefore the propriety of such rules applied, not only to the higher moral relations of human life, but to those of minor importance, and even the trivialities of social intercourse. To do away with ethical rules for the reason that they are not always observed would be in opposition to human experience and conducive to anarchy. Prescribed rules of conduct are of use by giving distinctness and force to popular sentiment. Moreover, the knowledge of rules affects the conduct of those who, not devoid of rectitude, pursue the wrong because they do not know the right. Rules thus tend to nullify the temptations and the specious pleadings of apparent self-interest.

It has been argued for the inutility of rules in medical ethics, that penalties for their non-observance are with difficulty instituted and enforced. This argument is as illogical as in its application to all other moral duties. It is a feature of the code of medical ethics that it takes no cognizance of penalties for violations of its requirements. It appeals solely to the judgment and conscience. Measures for the enforcement of its rules are left entirely to the discretion of local associations. These measures admit of discussion and differences of opinion. They may be injudicious in respect of undue laxity on the one hand, and, on the other hand, of over-strictness. In either case, the propriety and the importance of the rules remain unaffected. Whether violations of ethical rules shall be silently passed by, or occasion only personal expostulation, or be met by the tacit disapprobation of professional brethren, and under what circumstances they call for disciplinary measures, together with the forms of discipline called for in particular cases, are questions the consideration of which does not fall within the scope of these commentaries.

Reference has repeatedly been made in the course of these commentaries to the importance of popularizing knowledge of medical ethics and etiquette. This is especially desirable with respect to the "duties of physicians in cases of interference." Recognizing the propriety of the rules laid down in the code, knowledge of them would lead to co-operation on the part of the public in securing their observance. It is a common impression that, intrinsically, the ethical rules have no binding force; that they are restrictive without regard to individual rights and the claims of humanity. The observance of rules of etiquette is regarded as a frivolous formality. Let the rules of ethics and etiquette be understood by those without, as well as by those within, the profession, and deliberate violations of professional duty and propriety will be likely to fail in their objects. Public opinion will concur to render disreputable those who are guilty of unprofessional conduct.

SECTION 9. A wealthy physician should not give advice *gratis* to the affluent; because his doing so is an injury to his professional brethren. The office of a physician can never be supported as an exclusively beneficent one; and it is defrauding, in some degree, the common funds for its support, when fees are dispensed with which might justly be claimed.

For two reasons this section of the code has a limited application. In the first place, the number of wealthy physicians is small; in the second place, most physicians who

are wealthy are as willing to accept fees as they who are in moderate circumstances. The rule was doubtless intended to apply to instances in which a wealthy physician gives out, or has it understood, that his services are free to those who can afford proper remuneration as well as to the poor. The intent could not have been to enjoin it as a duty to receive fees in every instance from the affluent. There are circumstances under which, from delicacy or other motives, physicians are unwilling to be paid for their services, irrespective of the pecuniary ability of the patient. No one has a right to judge of these circumstances but the physician himself. Offenses against the intent of this rule must be extremely rare. As a measure of policy, with a view to obtain and retain practice, it would not be likely to succeed. With some exceptions, patients able to pay for medical services would not consent to continue long to receive them gratuitously. As an illustration, a medical friend of the writer, whose practice was largely among the affluent, kept no regular books, and sent no bills for fifteen years. The explanation which he gave was that he did not need any income from his practice, and he was too indifferent thereto to incur the trouble of making charges and collecting accounts. As a result, the greater part of his patients left him, preferring the services of those whose practice was on a business basis.

Persons who have relinquished medicine for other pursuits, and those who have pursued a partial course of medical study, are sometimes fond of playing the part of a *dilettante* practitioner. Except in cases of emergency, this is an impropriety which does injustice to the medical profession, to say nothing of the risk of injury to patients. An illustration of this risk, at the time of writing these remarks, has fallen under the writer's notice. An English clergyman, who had given some attention to the study of medicine as an amateur, was arrested and committed for trial on the charge of having caused the death of a young girl by administering oil of bitter almonds. There was no evil intent in giving the remedy, but, from ignorance, it was given in a poisonous dose. The counsel of the accused admitted the case to be one of "homicidal misadventure." The London "Lancet" concludes a notice of the case by saying: "We may hope that Rev. Mr. T.'s ample admissions and benevolent career will simplify and shorten a trial which, however, ought to serve as a warning to clergymen to remember that the weapons of their warfare are not medical."

Complaint is often made of the injustice done by dispensaries and clinics on the same ground as that of gratuitous advice to the affluent. The complaint is a valid one, in so far as these institutions furnish gratuitously medical and surgical aid to those who have no right to assume the claims of poverty. It is difficult in the administration of medical charities to escape imposition. To do so, as far as practicable, is plainly a duty, not alone to the medical profession, but to those by whom the charities are maintained, and to those for whose relief they are instituted.

ART. VI.—Of Differences between Physicians.

SECTION 1. Diversity of opinion and opposition of interest may, in the medical as in other professions, sometimes occasion

controversy and even contention. Whenever such cases unfortunately occur, and can not be immediately terminated, they should be referred to the arbitration of a sufficient number of physicians, or a *court-medical*, or, where both parties are members of the medical society of their county, to the censors.

SECTION 2. As peculiar reserve must be maintained by physicians toward the public in regard to professional matters, and as there exist numerous points in medical ethics and etiquette through which the feelings of medical men may be painfully assailed in their intercourse with each other, and which can not be understood or appreciated by general society, neither the subject-matter of such differences nor the adjudication of the arbitrators should be made public, as publicity in a case of this nature may be personally injurious to the individuals concerned, and can hardly fail to bring discredit on the faculty.

"A doctors' quarrel" is an expression often made use of in a way to imply an event of common occurrence. It may be affirmed that doctors are not more given to quarreling than those engaged in other pursuits. Indeed, the mental influence of their professional duties is in an opposite direction. The occasions, however, of controversy and contention among medical men are apt to be not understood and appreciated by others. This is implied in the often-repeated saying, "Who shall decide when doctors disagree." Hence it is that the controversies and contentions of physicians are regarded as denoting a quarrelsome tendency.

Contentions among physicians for the most part are brought about by gossiping busybodies and go-betweens. Some persons seem to think that they can not compliment a physician more highly than by disparaging his competitors. Certain of his friends are not content with the ordinary manifestations of friendship, but they feel it incumbent upon them to depreciate as much as possible the merits of others. His partisans seek to draw from him expressions derogatory to the character or practice of the practitioners to whom they are opposed. His words are misinterpreted, and his silence may be misconstrued. Tale-bearers are ready to carry offensive reports to those to whom they refer. Resentment and retorts naturally follow. Thus it is that they who should be brethren are at sword-points. Now, generally this result might be prevented by a very simple procedure. Let any one who is led to impute a grievance to another practitioner at once seek an explanation in a spirit of kindness and charity. The result will be, in nine cases out of ten, that either the imputation is without foundation, or a satisfactory apology will be obtained. Such an explanation may tend to produce mutual confidence and cement friendships.

Harmony among physicians is most desirable, not alone for the comfort of those concerned, but as conducive to the honor and usefulness of the medical profession. It is essential to co-operation in medical consultations, in measures for public health, etc. For the maintenance of harmonious relations, local associations are important. In places of small or moderate size, these associations should embrace all the members of the profession of the community who are in good standing. In this way are avoided the evils of cliques, which are to be deprecated. The local associations should have more or less of a social character. They afford oppor-

tunities for intimate acquaintance, for the explanation of misunderstandings and for their prompt adjustment. Observation will show that, in the places in which such associations exist, much more harmony and good fellowship prevail than in the places in which physicians are not brought together in social intercourse. Controversies and contentions, however, can not always be avoided. They will be terminated with the more difficulty the longer they continue. The code of ethics, therefore, judiciously instructs that, if not terminated *immediately*, they are to be adjusted by arbitration. The method to be preferred is for the parties to select disinterested and unprejudiced persons as arbitrators, having previously agreed to abide by their decisions. In this way publicity may be avoided. But, if a supposed grievance involve a question of flagrant unprofessional conduct, there may be no alternative beyond a formal complaint to and an adjudication by an organized society, embracing among its powers regulations for investigation and discipline in such cases. The code instructs that the *censors* of a county society are to adjudicate. This, evidently, should be left to the action of the society, which may refer these matters to a special committee on ethics, or to committees appointed for the purpose in particular cases. Here, as elsewhere, the code takes no cognizance of the modes of discipline. Each society may determine these without regard to the action of other societies. The reasons for secrecy as regards the subject-matter of the adjudication of differences among physicians are succinctly but amply set forth in the code. Secrecy, however, can hardly be expected when expulsion from societies and exclusion from professional fellowship are the penalties inflicted. Nor, with a view to a salutary moral effect, would secrecy, under these circumstances, be desirable, were it practicable.

ART. VII.—Of Pecuniary Acknowledgments.

Some general rules should be adopted by the faculty, in every town or district, relative to *pecuniary acknowledgments* from their patients; and it should be deemed a point of honor to adhere to these rules with as much uniformity as varying circumstances will admit.

By no process of distortion can this article of the code be made to inculcate a combination, after the manner of trades-unions, to establish and enforce a certain rate of wages for medical services. The article applies fully as much to exorbitant as to inadequate pecuniary acknowledgments. It is plainly important, for the convenience of patients, as well as of physicians, that in every community there should be an understanding as to the customary fees for the different kinds of service which medical men are expected to render. It would be extremely incongruous in ordinary practice for the physician, before giving advice or making a professional visit, to state the amount of compensation which he will require, although, in certain cases, to do so is not only proper but advisable; nor, as a rule, should patients be expected, whenever a physician is summoned, to inquire respecting his fee, albeit, under certain circumstances, this is both decorous and desirable. Exclusive of exceptional instances, which will be presently referred to, the adoption of some general rules, and their recognition

within and without the profession, obviate the necessity of questions, explanations, and discussions, which are often embarrassing and disagreeable.

The poor policy of under-bidding other physicians, for the sake of gaining practice, would probably deter those from pursuing it who might be so inclined. The adage, "dear at any price," would be applicable to physicians relying on this policy. This is well understood by the public. Few patients are disposed to select a medical adviser because he places a low pecuniary valuation on his services. Necessity alone would dictate a choice on this ground; and it is rarely the case that inability to pay the customary fees prevents patients from having the services of those whom they prefer. The code by no means interdicts deviations from the general rules according to varying circumstances. It is to the honor of the profession that the instances are few in which efforts for the relief of suffering and the preservation of life are withheld on account of inability to make an adequate pecuniary acknowledgment. The circumstances which lead physicians from sympathy to deviate from the general rules are often not apparent to others. Few persons outside of the medical profession are aware of the extent to which the services of its members are freely rendered, with but little or no compensation; hence, one reason for an exaggerated estimate of the incomes of those largely engaged in practice, and for the fact that the majority of practitioners, after a long professional career, leave but little property. The physician, from his intimate relations with his patients, comes to know often their limited resources, of which, perhaps, others are ignorant; how can he add to their embarrassment and anxiety by exacting full payment for his services? A considerable proportion of those to whom these services are gratuitously rendered do not come to him *in forma pauperis*, but silently appeal to his benevolence. While it can not be assumed as a principle that the remuneration received from the affluent should be sufficient to compensate for services to those unable to make pecuniary acknowledgments, the fact that these services are rendered in the cause of humanity should be considered as a reason for the ready and cheerful payment of fees by patients who have no claims on the charity of the profession.

A demand for exorbitant fees is not in accordance with this article of the code. When based on an assumption of extraordinary knowledge or skill, it is an imposition, and it is, of course, fraudulent if services have been falsified. An exorbitant fee can not be claimed on the score of the wealth of a patient. Such a patient may add to the fee an *honorarium* which, considering the services rendered by a physician to those unable to make pecuniary acknowledgments, may be accepted without compromising self-respect. Extraordinary services rightfully claim deviations from the general rules in respect of fees. Detentions or constant attendance, involving sacrifice of interests, unusual fatigue, or impairment of comfort, and visits requiring traveling and absence from home, are in this category. No one but the physician himself can place a valuation on such services, and it is his right to do this, provided there be an understanding before the services are rendered. If the expense

of certain services be stated beforehand, patients or their friends can have no occasion for complaint, and thereby the risk of unpleasant feelings, and, it may be, a suit at law, will be avoided.

Inasmuch as it is the custom in this country, after medical services have been rendered, either for the patient to request to know the amount of indebtedness, or, if not requested, for a bill to be presented, it is unbecoming to leave the amount of pecuniary compensation to be determined by the party who has received the services. It is to be assumed that the services have a certain valuation, varying, of course, according to circumstances in particular cases. To decline to fix on any valuation, provided patients be affluent, is virtually to appeal to their generosity, and this is certainly undignified. If the valuation by patients be higher than that of the physician, the difference is easily made up by an honorarium. The exceptions to the rule that the physician should determine the value of his services are in some instances in which the pecuniary resources of the patients are either unknown or known to be limited. For a physician to keep no account of medical services, relying on the voluntary contributions of his patients for his support, is not only unseemly, but derogatory to the profession. Medical as well as other services are entitled to compensation, whenever they are not charitably bestowed, and it is disreputable to place pecuniary acknowledgments in the light of a gratuity.

THE STATUS OF THE MEDICAL PROFESSION IN THE STATE OF NEW YORK.

By HENRY G. PIFFARD, M. D.

First Article.

COMPARATIVELY few are acquainted with the history of the events that led to the movement which resulted in the formulation of the New Code of Ethics of the Medical Society of the State of New York. The writer of this considers himself fairly well informed on the subject, and will give what appears to him the facts pertaining to the subject. In doing this, however, he must be pardoned for certain apparent digressions, since, in order that the matter may be correctly understood, it will be necessary to go back to the times that precede the promulgation of the "Old Code."

Prior to the year 1845 the medical profession found itself in the presence of certain evils and inconveniences that appeared to the leaders of professional sentiment to be adverse to the interests and welfare of the medical profession. This was specially felt in the State of New York, and it was in this State that the matter was first seriously considered.

In New York the profession first became organized as a corporate body in the year 1806, and seventeen years later thought fit to lay down a set of rules for the government of its members. This action was deemed necessary in order to control some who appeared to regard medicine in the light of a trade rather than a profession, and who were regarded by their stricter brethren as medical freebooters rather than physicians. The result was the enactment in

1823 of the "System of Ethics of the Medical Society of the State of New York." This "system" or code inculcated two species of obligation, namely: those which the profession should bear to the public, and those which its individual members should hold to each other. This code was founded on and was an adaptation to local needs of an English work known as "Percival's Ethics." At this time there was little cause for uneasiness on the part of those who with propriety might be called "regular physicians," namely: those who were graduates of medical schools, and those who, after strict examination, were "licensed" to practice the profession by the bodies having due authority thus to license—to wit, the county societies. During these years, however, an irregular sect had come up, outside the profession, and who were commonly spoken of as the "steam-doctors" and "herb-doctors." These were men of no medical acquirements, and of varying degrees of honesty, who had embraced the doctrines of one Samuel Thomson, hailing from New England. Their chief therapeutic reliance was on vigorous sweats with the free use of lobelia and the utter condemnation of mineral and certain other powerful drugs. The clamor that they raised against the heroic treatment then practiced by the mass of the profession resulted in a most bitter feud, in which the laity, as is usually the case, took an active interest. The State government was appealed to, and for nearly twenty years the strife was kept up, sometimes the profession and sometimes the quacks being ahead. In 1827, however, the profession gained a definite and substantial victory, the medical act of that year placing in their hands the supreme control and regulation of the practice of medicine in this State. At this time the State society had less power over the county societies than at present, and the suppression of quackery was virtually left in the hands of the county societies, each having jurisdiction in its own district. The war against the irregulars, just mentioned, was kept up with more or less vigor in different localities. During the fourth decade of this century, however, a new form of irregularity appeared. I refer to the introduction of Hahnemannism or Homœopathy; terms which in those days were synonymous. This new form of heresy developed, not among the irregulars, but in the bosom of the profession itself. The adherents and advocates of the new doctrines were members in good standing of the county societies, and their brethren were unable to invoke the aid of the law to compel them to practice in accordance with the views and wishes of the majority. Another weapon, however, was brought into play, namely: social and professional ostracism. The public, as before, became interested in the quarrel. Many of the laity regarded the action of the majority as a species of oppression, and, as often happens, became partisans of the weaker party. During this decade the number of professed homœopaths increased and their adherents and supporters multiplied. The heretics were still members of the county societies, and there was no easy way of ridding the societies of them—that is, against their will. At that time the only way in which a member could be expelled from a society, and prevented from continuing his practice, was through a direct application to the courts. The courts, however, were

unable or unwilling to give the societies the desired relief, feeling, perhaps, that they had no more right to interfere in matters of professional than of religious heresy. The societies, nevertheless, possessed one valuable franchise: They could prevent any new comer from practicing in their respective districts if they saw fit to do so. This afforded them the means, as they thought, of preventing the increase of homœopathy by accessions from abroad. About the year 1842 the Orange County society, I believe, availed itself of this power; and forbade a physician of homœopathic tendencies from practicing in that county. Fearing that he would in like manner be prevented from practicing in the other counties of the State, he gathered his friends together and, without much difficulty, procured the passage in 1844 of a law that deprived the county societies of their powers in this respect. This law, moreover, went much further than this, as it repealed the penal clause of the act of 1827 and virtually permitted any who chose, whether educated or not, to practice medicine in this State. This permitted quacks of all sorts and descriptions to ply their vocation without fear of molestation. This condition of affairs was maintained for thirty years, and there can be little doubt that this was the direct result of the injudicious action of the Orange County society, indorsed as it was by the then general sentiment of the profession throughout the State. Homœopathy now had free scope to extend its influence, and, as the evils of sectarian medicine were most keenly felt in New York and Pennsylvania, these States were among the foremost to consider how they might be averted. The result of this consideration was the birth of the American Medical Association. It seemed probable to this association that the most effective blow would be given to the new-born heresy, if the profession as a whole combined against it. It seemed necessary that the homœopaths as a body should be absolutely excommunicated from professional recognition and intercourse, and that the public at large should know it. In the code of ethics, and especially in the "consultation" clause, this sentiment crystallized. It was thought that the public, knowing that consultations were forbidden, would be afraid to intrust serious cases to the care of a homœopath who might be scores of miles distant from a colleague with whom he might consult. This action was, to say the least, exceedingly unwise as judged from a purely medico-political standpoint. In those days the chief therapeutic reliances of the profession were bleeding, purging, puking, blisters, and salivation. In contrast to this the homœopath offered medication that was not unpleasant to take, nor, apparently, disturbing in its effects. Is it a wonder, then, that many persons, finding themselves but trivially affected and yet desiring professional advice, preferred the milder to the severer medication? Happily recovering, they felt emboldened to trust even severer cases to the homœopath. The general profession, however, were blind to the teachings of these everyday occurrences, and it was not until Andral, in France, demonstrated in the hospitals of Paris that no treatment was preferable in certain diseases to the methods in vogue, that medical men awakened to the fact that in many cases they were doing their patients harm rather than good.

In England, Sir John Forbes learned the lesson, and endeavored to teach it to his countrymen. The reward he reaped was the scorn and hatred of his peers, and, after his death, the virtual adoption of his views (expectant treatment) by a succeeding generation. He simply taught that entire absence of treatment was often better than the heroic methods practiced by his colleagues. During these years the homœopaths, despite the opposition of the profession, increased in numbers and in influence, and, excluded by the "code" from joining the existing medical corporations, they applied to the State for authority to form corporations of their own. This they secured, with powers co-extensive and identical with those possessed by the older societies. Most of the older homœopaths joined the new organizations, but there was still left a certain leaven of unrighteousness, which the majority desired to get rid of. This could hardly be accomplished under existing laws, as the societies had not the power to prune their membership, except through an application to the courts. This was felt to be an inconvenience, and the Legislature was applied to for relief. Through the exertion of Dr. J. G. Adams and others, a law was enacted, in 1866, which greatly enlarged the powers of the county societies in this respect. The law in question permitted them to frame by-laws (subject to the supervision of the State society) which would enable them to visit expulsion on any member who should be guilty of irregular practices. The term "irregular practices" was a little indefinite, but was commonly understood to include employing remedies or methods that in any way resembled or savored of homœopathy. In the year following the passage of the act, the Westchester Medical Society invoked its aid to enable them to get rid of an obnoxious member who was charged with "irregular practice of medicine." Apparently the gravest charge against the member was the admitted fact "that he has purchased globules of sugar of milk by the pound from the Homœopathic Pharmacy in New York City," and "that he used these homœopathic globules in his practice, to induce his children patients to take the medicine which he prescribed for them." On these charges he was expelled by the county society, and, on the member's appeal to the State society, the action of the county society was sustained. The expelled member, if he desired professional affiliation, was now forced to join the homœopathic society. In this way the ranks of that body obtained occasional recruits. I do not mean that there were many formal prosecutions for the crime of giving the children a little candy, but the social and professional pressure was so great that many left the regular societies voluntarily, in order that they might obtain a little peace from persecution and be enabled to practice as they thought best. It is a curious fact that, while the regular societies *excluded* the use of certain medicines and modes of employing them, the homœopathic societies were really more liberal in this respect, none of them, I believe, having formally adopted the exclusive tenets of Hahnemann, or declared that their members must practice exclusively in accordance with the doctrine of similars. So far as I am aware, they never expelled any of their members who found that "confectionery" ("*Zuckerwaaren*," as the decision of

a German court of justice recently termed it) was not always sufficient, and who supplemented it with a good dose of quinine or calomel. The homœopaths, then, were, practically at least, less exclusive than their elder brethren. Many physicians, who, led by a spirit of inquiry, investigated the homœopathic system, found some apparently striking verifications of the doctrine of similars, forthwith fancied that in these consisted the whole science and art of medicine, and made use of them as occasion required. This led to their ethical condemnation, and forced them into the established homœopathic organizations, in some instances long before they had any settled convictions on the subject. There is little doubt that the general effect of the "code" was, in many ways, to build up and strengthen the sectarian societies, not only by forcing men into them, but by exciting public sympathy in their favor, and thus aiding them politically. A house divided against itself can not stand, and a medical profession divided into hostile camps can not long retain the respect of the public, nor the good-will and assistance of the legislators.

Going back some years, we witness the birth of still another medico-political organization. The old herb- and steam-doctors, some of whom had picked up a smattering of medical knowledge, began to form voluntary organizations for mutual protection. Before long they, too, aspired to corporate powers and governmental recognition. The existing feud in the profession rendered this a comparatively easy matter. Under the title of "Eclectics" they secured the same chartered rights as the other societies. There is little doubt that at this time the homœopaths aided the eclectics, believing that, by forming an alliance with them, they could prevent the regulars from in any way curtailing the corporate powers of either body. For obvious reasons an alliance of this sort could not be very long maintained. The homœopaths, as a rule, were educated men, while the vast majority of the eclectics were not. There was, however, another cause that tended to isolate the eclectics from the educated profession, and this was their code of ethics. Following the example of the regulars, the homœopaths adopted a code that was a verbatim copy of the American code, with the single exception of the consultation clause. The eclectics, however, adopted a code which in every important respect was the exact reverse of the American code. In their code they stated that it was proper for medical men to hold patents on surgical instruments, to advertise in the papers, to invite laymen to operations, to practice with secret nostrums, etc. Such practices most medical men regard as eminently improper, but this did not alter the fact that these men were in the eye of the law fully as regular as the very elect. This position they never would have obtained had it not been for the existing feud between the regulars and the homœopaths.

We now had in the State of New York three medico-political bodies, each with co-ordinate powers and co-ordinate jurisdiction. The differences between them were essentially as follows: The first or older organization and the second one were at variance simply on the question of practical therapeutics, while on questions of general medical polity they thought alike. The third organization differed

from the others, both on the question of therapeutics and medical polity. One might suppose that the State of New York was by this time sufficiently afflicted, but such was not the case. A few years later, still another body, claiming to possess certain special therapeutic advantages, obtained corporate privileges and governmental recognition. But this was not all; the repeal of the penal clause of the act of 1827 permitted quacks and charlatans of every kind to come to the State and deceive the unwary in any manner that they chose. Such was the condition of affairs up to 1874. At this time some one—I have never been able to ascertain who—introduced into the Legislature a bill to regulate the practice of medicine in this State. This bill would appear on its surface to have been a desirable measure, but a careful study of it ought, at the time, to have revealed its true inwardness. If this bill was not originally drawn by the eclectics, it was unquestionably manipulated by them during its passage through the Legislature, and practically it turned over to them the licensing of every quack in the State who thought it worth while to pay them an examination fee of ten dollars. The majority of them, however, did not take even this trouble. They had enjoyed immunity for thirty years, and were not afraid to take the risks a little longer. As a matter of fact, the few prosecutions that were undertaken came to a lame and impotent conclusion.

This, then, was the state of medical affairs in New York about the year 1876. There were, first, the regular profession, enjoying chartered rights that dated back for seventy years, and consisting of men who were graduates in medicine, or licentiates (after examination) of the county societies; second, a sectarian offshoot from them, who were likewise educated men; third, a sect growing up by itself, and slipping into corporate existence while the first and second were quarreling—an exceedingly small number of these men had received a medical education; fourth, a sect that died almost at its birth; and, fifth, the horde of miscellaneous quacks who settled in the State during the times when this could be done with impunity. All of these things were brought about during the period that the profession were under the guidance of the code of ethics of the American Medical Association. Surely, if the object of this code were the suppression of quackery, its success can hardly be described as brilliant. How it is in other States, the profession there resident are the best judges. In what precedes and follows, I am speaking only concerning the State of New York. With quackery rampant to a degree never before witnessed in this locality, the problem to be solved was, What were the causes and what was the remedy? These questions could certainly not be answered off-hand and without consideration. The problem was one that required careful and earnest study, if a correct solution was to be reached. This study was undertaken by the then officers and censors of the Medical Society of the County of New York, whom the law had constituted the guardians and protectors of professional honor and professional interests within their jurisdiction. Almost the first conclusion at which this body arrived was, that the laws regulating the practice of medicine were palpably defective. With prac-

tically no law from 1844 to 1874, and after that a worse than no law, it was clear that, until an efficient statute was enacted, it would be impossible to expect much, if any, improvement in the affairs of the profession. At this juncture a gentleman who had acted as the legal adviser of the society offered to prepare a suitable bill, and endeavor to procure its enactment. His offer was accepted. A bill was prepared, and introduced in the Senate. This bill was referred to a committee, and an hour was assigned for its consideration. At the appointed time the advocates and opponents of the bill presented their views to the committee, which was represented solely by its chairman, Dr. Ray V. Pierce, of Buffalo, a noted medical advertiser, and a member, we believe, of the eclectic organization. The bill did not meet the approbation of the committee, was not reported favorably to the Senate, and did not become a law. The next attempt to secure suitable medical legislation was made by the State Medical Society. In 1880 it instructed its Committee on Legislation to prepare a proper law and submit it to the Legislature. This was done, and the Medical Act of 1880 was the result. Prior to the passage of this act there were in the State upward of one hundred and fifty bodies that were competent to legitimize practitioners of medicine. The act in question reduced the number to thirteen. Of these bodies, two were eclectic, two were homœopathic, one was nondescript, and the rest pertained to the regular school. Within the past year two of these bodies have been declared illegally constituted, and their career has ended. In 1882 an attempt was made by the State society to reduce the number of licensing bodies to one. The bill which was drawn for the purpose of effecting this object did not become a law. The law of 1880 remains in force, and under it the entire responsibility in regard to the licensing and legalizing of practitioners in the State rests with the medical colleges of the State, while prosecutions for violation of the law may be undertaken either by individuals or the county societies. In New York County these prosecutions have been numerous, and usually successful. Thus far but one flaw or serious imperfection in the law has been discovered—namely, that the penalty for perjury in connection with registration is not sufficiently severe. Shortly after its adoption, our Pennsylvania brethren procured the enactment in that State of a law identical in its main features with the New York law. That the New York law is all that is to be desired, or that it is the best medical act in this country, is far from being claimed. In fact, I believe that Illinois and North Carolina have better ones, both from a theoretical and practical standpoint.

From this *résumé* of the medico-political situation it will be seen that, after a sharp fight with quackery, the profession obtained the upper hand in 1827; that for several years it retained this control; that in 1844 it lost its power, and failed to regain any of it until 1880; that even now it does not possess the full powers and privileges that it formerly enjoyed.

I shall next consider the medico-educational and the medico-ethical status of the State, and afterward endeavor to read the lesson of the past, and point out the path that

the profession should follow if it hopes or desires to regain its lost power, and to occupy the vanguard in medical affairs in this country.

(To be continued.)

REMARKS ON THE GENERAL ARCHITECTURE OF THE NERVOUS SYSTEM OF MAN.

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THIS article, together with some others that I purpose to contribute to the "New York Medical Journal" shortly, formed the introductory lecture of my course during the winter. The other articles alluded to made up the continuation of the course. This fact will explain the elementary character of much that is here stated.

In man and the vertebrates the cerebro-spinal axis may be divided into three separate portions—each perfectly independent of one another, and yet very intimately connected. These are as follows:

1. THE CEREBRUM.
2. THE CEREBELLUM, AND THE APPARATUSES OF CEREBELLAR INNERVATION CONNECTED WITH IT.
3. THE MEDULLARY PORTION OF THE SPINAL CORD, AND ITS EXPANSIONS TO THE DIFFERENT PARTS OF THE ENCEPHALON.

The nervous system of all animals may be subdivided into two distinct histological elements, *nerve-cells* and *nerve-fibers*. The former may be compared to the battery-cells of an electric circuit, the latter to the wires which conduct the current generated in the batteries. The nerve-cells are the chief histological elements of the so-called "gray matter" of the brain and spinal cord, and of ganglia found in other parts; while the white substance of the cerebro-spinal axis may be subdivided by the microscope into distinct fibers, which serve to connect the nerve-cells of some particular region with other nerve-cells or with the muscular apparatus. Nervous impulses may be divided into two classes: centripetal or *sensory*, and centrifugal or *motor*. The former travel from the peripheral portions of the body toward the nerve-centers, while the latter cause the muscular apparatus of the body to act, either in direct response to a sensory impression received from without (reflex movements), or as the result of volition. Microscopical research enables us to state positively that both of these two forms of nervous impulses are conducted partly through direct tracts of nerve-fibers, and partly by the intercommunication established between nerve-fibers and nerve-cells, and nerve-cells with each other. We may infer, therefore, that nerve-cells as well as nerve-fibers serve to maintain *isolated conduction* of nerve impulses; and that the former also generate and in some instances record them (cells of memory). We find the morphological expression of the first statement in the fact that the nerve-cells lie with their long axis stretched in the direction of the fibers with which they are connected, while the second and third propositions are established by physiological research respecting the functions of different regions of the cerebral cortex, as well as by the

general arrangement of the cell elements. We are forced, moreover, to accord to the nerve-cell the functional attribute of *sensibility*, as well as the power of generation and storage of nerve-force, and the discharge of this unknown power in the form of motor impulses. There is sufficient ground at present to warrant the belief that all centripetal and centrifugal-conducting nerve-tracts are prolonged (in spite of apparent dismemberments and reduplications to which the white substance of the cerebro-spinal system is subjected in passing through different collections of gray matter scattered along their course) to the most distant centers of the nervous mechanism, and find a direct and intimate connection with the nerve-cells of the gray substance of the cerebral convolutions. It seems but rational to assume that the phenomena of consciousness, which spring purely from the confluence and union of the various processes of perception, have their seat in the activity of the cerebral lobes; to which all the centripetal (sensory) tracts converge and from which all the centrifugal (motor) tracts arise.

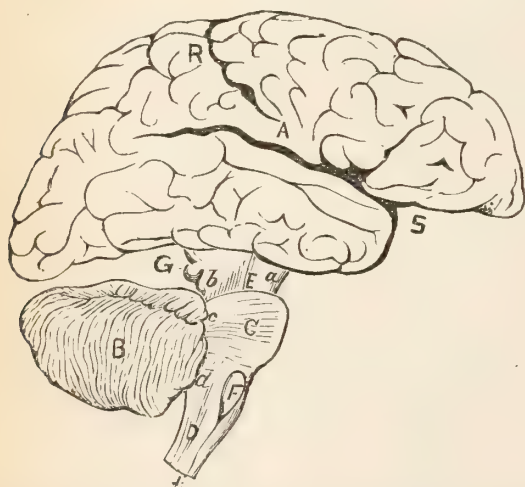


FIG. 1.—PLAN IN OUTLINE OF THE BRAIN IN PROFILE. (Modified from Quain.)

The cerebrum is represented in this diagram as separated from the cerebellum more than it naturally should be, in order to show certain important parts. A, the cerebrum; B, the cerebellum; C, the pons Varolii; D, the medulla oblongata; E, the crus cerebri; F, the olivary body; G, the tubercula quadrigemina; S, the fissure of Sylvius; R, the fissure of Rolando; a, peduncles of the cerebrum; b, superior peduncles of the cerebellum; c, middle peduncle of the cerebellum; d, inferior peduncles of the cerebellum; e, a, form the isthmus encephali.

If we study transparent sections of the brains of small mammals, where the different portions are more clearly defined than in animals of a higher type, and where a low magnifying power reveals the general course of the nerve-fibers as well as the arrangement of the masses of gray matter, we are enabled to grasp some general features of construction which are applicable to the brain of man.

We find, in the first place, that the nerve-cells occur in large and distinctly isolated masses, which may be thus enumerated:

1. The gray matter of the exterior of the cerebrum (the *cortex cerebri*) that invests the convolutions. This collection of cells, as an undulating layer folded constantly upon itself, forms a series of eminences and depressions whose sole object is to obtain an increase of surface over that of the interior of the cranium.

2. Buried within the substance of the cerebrum upon either side may be found two nodal masses, which rest nearly upon the level of the floor of the brain and which are

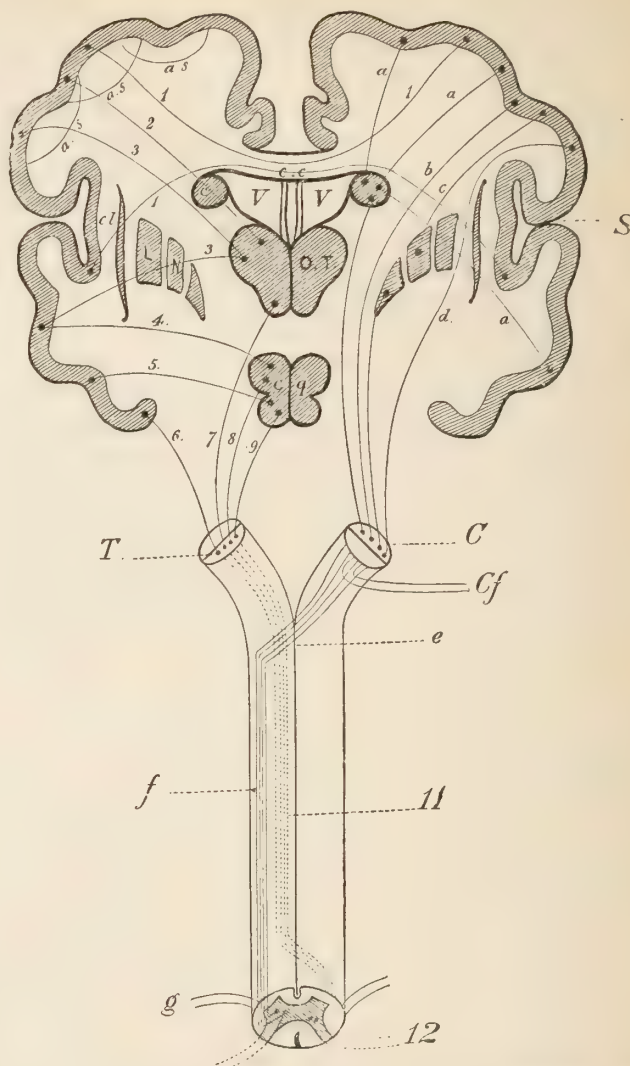


FIG. 2.—A DIAGRAM DESIGNED TO SHOW THE GENERAL ARRANGEMENT OF THE FIBERS OF THE CEREBRO-SPINAL SYSTEM. (Modified from Landois.)

The shaded portions represent the collections of gray matter. On the left side of the diagram, the *sensory* fibers of the crus are traced upward from the spinal cord to different portions of the cerebrum; on the right side, the *motor* fibers are similarly represented. Numerals are used in designating the sensory and commissural fibers, while the motor fibers are lettered in small type. The cortical layer is shown at the periphery of the cerebral section, with commissural fibers (1) connecting homologous regions of the hemispheres, and associating fibers (*a. s.*) connecting different convolutions of each hemisphere. *c.*, caudate nucleus of the corpus striatum; *L. N.*, lenticular nucleus of the same; *O. T.*, optic thalamus of each hemisphere, united to its fellow in the median line; *c. g.*, corpora quadrigemina; *c. l.*, claustrum, lying to the right of the letters; *c. c.*, corpus callosum, with its commissural fibers; *S*, fissure of Sylvius; *V*, lateral ventricle, the fifth ventricle being shown between the two layers of the septum lucidum; *C*, the motor tract of the crus cerebri (basis cruris—crusta); *T*, the sensory tract of the crus cerebri (tegmentum cruris); *Cf*, the cerebellar fasciculus; *e*, the point of decussation of the motor fibers of the spinal cord; *f*, the course of the motor fibers of the spinal cord below the medulla, showing their connection with the cells of the anterior horns of the gray matter, and their continuation into the anterior roots of the spinal nerves (*g*); *a*, fibers which radiate through the caudate nucleus; *b*, fibers of the "internal capsule"; *c*, fibers which radiate through the lenticular nucleus; *d*, fibers of the "external capsule"; 2, 3, 4, 5, 6, 7, 8, 9, sensory fibers radiating from the tegmentum cruris to the cortex by means of various nodal masses of gray matter; 11, course of the sensory fibers of the spinal cord (shown by dotted lines), intimately connected with the posterior root of the spinal nerve (12), and decussating at or near to their point of entrance into the spinal cord.

named, from their contiguity to this plane, the "*basal ganglia*." Each anterior mass is called the "*corpus striatum*," from the striated appearance of a section made through its

hemisphere. These are called "*commissural fibers*." They are supposed to be the connecting wires between corresponding portions of the cortex of the cerebral lobes, by the aid of which the right and left hemispheres can act in unison with each other when circumstances chance to demand it. These fibers have a direction which corresponds as a rule to the form of the letter U, and they constitute the transverse fibers of the *corpus callosum*—the connecting band of white matter between the hemispheres, seen at the bottom of the median fissure of the cerebrum when the lobes are separated. Commissural fibers can be traced also between the hemispheres (in certain sections of the brain) as an inferior band which lies below the level of the basal ganglia (Luys). There is reason to believe that these connecting fibers (which form nearly if not quite one half of the white substance of the cerebrum) are sufficient, in point of number, to allow of an anastomosis of the gray matter of the cortex of the two cerebral lobes, cell to cell. In infinite numbers they seem to spring from every region of the cortex—either directly from the protoplasmic structure of the cell elements, or as delicate fibrils which can be traced

no farther than the intercellular structure, where their delicate sheaths become lost.

(To be concluded.)

Correspondence.

LETTER FROM BOSTON.

Boston, April 1, 1883.

THE approaching dedication of the new building erected for Harvard Medical School renders quite apropos a little gossip regarding the school and its needs, as well as a concise description of the magnificent quarters on the Back Bay into which this important department of Harvard University will soon move. Let it be premised, first, that Harvard Medical School, in the words of one of its most distinguished sons, "has for ever been outgrowing itself." When it entered on its grand mission it was crowded into the old Holden Chapel at Cambridge, with a staff of three teachers. In 1810 and 1816 changes in location were made, the first to number 49 Marlboro' (now Washington) Street, and the second to a small building in Mason Street. It was in 1846 that the next removal was made, this time to the North Grove Street building. Here, for some years, at least, there was room enough; but the rapid increase in the number of students (now more than two hundred and seventy-five) brought an attendant call for enlarged facilities in all departments. This demand, of course, has been a yearly increasing one. The laboratories have been among the makeshifts of the old North Grove Street building, while the insufficient lecture-rooms have long been unfit for the uses to which they have been subjected. The Museum of Pathological Anatomy, too—that precious accumulation of a century which the school cherishes so proudly—has been a mere tinder-box, the valuable collections of models, casts, specimens, books, and apparatus having been afforded no protection from fire. It was at this point in the career of the medical school that, after one hundred years of

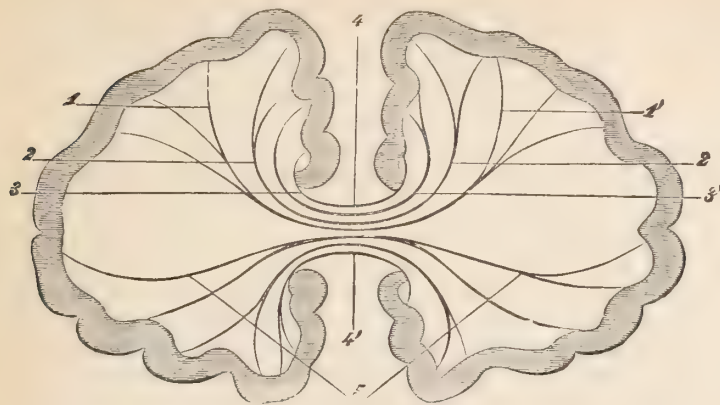


FIG. 3.—DIAGRAM OF THE COMMISSURAL FIBERS OF THE ANTERIOR REGION OF THE BRAIN. (After Luys.)

These form a series of curves one within another, the extremities of each of which plunge into the homologous regions of each cerebral lobe, 1, 1', 2, 2', —3 and 3'. They pass through the middle line, and at 4 and 4' give rise to the various appearances which the corpus callosum presents. 5, Commissural fibers of the inferior regions. These are curved in an inverse direction as regards the former, the convexity of each set being presented toward that of the other.

substance;* the posterior mass is called the "*optic thalamus*," from a supposed association with vision attributed to it by early investigators.

3. The *cerebellum* presents collections of gray matter which occur partly in layers (*cerebellar cortex*) and partly as scattered masses within its substance.

4. Finally, the so-called "*tubular gray matter*" (which may be traced as a lining to the inner portions of the cerebro-spinal axis from the tuber cinereum to the conus medullaris of the spinal cord) must be recognized as the permanent expression of the primitive and generic type of brain.

The diagram shown in Fig. 2 will make these subdivisions of the gray matter of the cerebrum, as well as the fibers which connect them, more apparent than a long verbal description. It will be seen that the gray matter of the cortex is arranged like a cap to the brain, and embraces the "*basal ganglia*," the "*claustrum*," and "*corpora quadrigemina*"—intermediate portions being left which in the brain itself appear as a white, cheesy mass. These are filled in with lines indicating the different sets of nerve-fibers, as the microscope in the hands of late observers has shown them to exist, and of which this so-called "*white substance*" of the brain is chiefly composed. [A careful study of the text accompanying Fig. 2 will enable the reader to grasp the general direction and terminations of the sets of fibers described.]

It will be seen that certain fibers spring from the cortex, and, after taking a direction which tends to bring them to the level of the superior point of union of the two cerebral hemispheres, cross over to the side opposite to that from which they arise. After crossing, they can be traced to *homologous regions* of the cortex of the opposite

* This ganglion has two parts (as shown in Fig. 2)—the *caudate nucleus*, and *lenticular nucleus*.

work for humanity, an appeal went forth to its friends. The response was prompt and highly encouraging. More than \$250,000 was given that a building might be erected which, in size and interior arrangements, should serve as a fitting structure in which to carry on the work so well begun. With very slight delay, a site was soon selected, offering really splendid advantages, from its proximity to our great Public Library, the Art Museum, and the rooms of the Massachusetts Natural History Society. It is, too, equidistant from the Massachusetts General and City Hospitals and Boston Dispensary, and shadows the walls of the new Children's Hospital. This site is a portion of what our city government has recently and appropriately named Copley Square, and is in a section of the city unequalled for the beauty of its architectural development, as well as possessing the added advantage of convenient situation. A sufficient quantity of land having been purchased (an eye to the demands of a more remote future was had in this respect, by the way), the faculty stated their requirements to the corporation of Harvard University, and soon, thanks to the efforts of a large committee of the medical teachers, the architects' plans were submitted and approved, and the workman's hammer was shortly heard binding the bargain.

The building now so near completion occupies a lot of land, 264 × 125 feet, on the corner of Boylston and Exeter Streets, having a frontage of 123 feet on Boylston Street, 100 feet on Exeter Street, and 131 feet on the back lane. It stands back 15 feet from the latter street and 25 feet from the former. The remainder of the lot forms a yard, 125 × 100 feet, inclosed by high brick walls, entered from the back lane and containing horse sheds and similar conveniences, besides a rear entrance to the building proper. The new school is entirely in the Renaissance style of architecture, freely treated, and developed in brick, with moldings, etc., of red sandstone and with decorative panels of terra cotta. It has four lofty stories and a flat roof, surrounded by a skyline of stone balustrades and low gables, the latter marking structural divisions of the interior. The height of the building from the sidewalk to the top of the balustrade is 77 feet. The main front on Boylston Street has three pavilions, the central one of which is slightly recessed. These pavilions are *façades* of the two main divisions of the plans which are formed by the crosswalls running north and south, inclosing in the center a great staircase, 41 × 35 feet, lighted mainly from the roof. The remainder of this central division to the north and south is occupied in all the stories by smaller rooms, serving as offices to the greater halls which occupy the main east and west divisions of the plan. The smaller rooms are mezzanines (half-stories), so that, while the east and west pavilions are four stories high, the central pavilion has six stories. The principal entrance to the building is in the center of the Boylston Street *façade*, by an architectural portico and steps, opening into a great waiting hall 41 × 56 feet, divided into two parts by an arcade of five arches, supported by polished granite columns. Of these two parts, one is the entrance hall and the other, at the rear, the staircase hall. Both are paved with marble, with molded dados and cornices of fine brickwork and plaster wall panels between, decorated with oil paintings. This treatment, by the way, is extended through the six stories of the staircase. The stairs themselves are of iron, with an enriched balustrade of iron, supported by iron columns with decorated capitals; the staircase galleries are eight feet wide, and arranged for tiling on flat floor-arches of concrete blocks.

The structure is throughout as near fire-proof as possible, all the walls being of brick without furrings, with minor partitions of concrete blocks. The floors and roof are of "mete construction," and made of three-inch planks, laid flatwise upon heavy, square beams. On the lower side these beams are

entirely incased with plaster on wire lathings, and embellished with stucco moldings and cornices, to serve as a protective envelope in case of fire. In order to avoid columns, the larger rooms are crossed by compound trusses of iron, also incased in plaster, and into these are framed the wooden floor-beams.

The various rooms and departments of the college are disposed as follows: On the first floor, connected by a wide brick archway with the entrance hall, are the janitor's apartments, occupying the northeast corner of the building, so placed that he may command a view of the exits and entrances, both front and rear, and be in ready communication with all those parts of the building requiring his personal services. On the southeast corner is a large reading- or study-room, 43 × 46 feet, with smoking- and coat-rooms adjoining, all, of course, for the students' uses. The western side of this story is occupied by the faculty-room, library-room, and a lecture- or recitation-room, each apartment being roomy and well adapted to its special purpose. In the second story, over these rooms, is the extensive laboratory for general chemistry, 95 × 36 feet, and 21 feet high, so fitted up that 212 students may work together at the same time. The mezzanines connected with this important apartment are subdivided for special laboratory services and studies, for store-rooms, professors' studies, etc. A portion of these half-stories are also used in connection with the physiological laboratory (36 × 48 feet, and 21 feet high), occupying the northeast corner of this story, and furnished with benches, steam baths, chemical hoods, and all other appliances essential to this division of the school, including, also, private laboratories for the professor and his assistants, and direct communication with the floor of the general lecture-room, which occupies the southeast corner of this story. This hall (43 × 46 feet) is arranged with sloping ranges of seats for 234 students, and the floor is furnished with an experimental table and hoods, with arrangements for illustrative charts and blackboards. The students' access to the lecture-room is from the half-story above, and the space under the sloping seats is utilized by the physiological professor for experimental purposes, storage, etc.

The third full story is occupied in front by the Museum of Pathological Anatomy, 80 feet long by 34 feet wide in one part, and 48 in another, with galleries all around and glazed cases dividing the alcoves. This, by the way, is the famous museum of which Harvard is so proud, and is the finest collective exhibit of its kind in this country. It is to be handsomely decorated with portraits, busts, etc. From the museum there is direct access to the arena of the anatomical theatre in the southeast corner, over the general lecture-room, occupying the height of two full stories, with steep sloping seats for the accommodation of 268 students, who thus, as it were, overhang the table of the demonstrator in anatomy. The students' access to these seats is by galleries opening on the upper corridor of the staircase. Thus they never necessarily come in contact with the instructors and their appliances on the floor. The space under the seats is occupied by the curator of the museum for the preparation of specimens and for storage, and also by the professor of anatomy for his study. The western third of this story is devoted to subordinate lecture- and recitation-rooms. The upper story contains, in the northeast corner, the pathological laboratory, an ample room, excellently lighted from above and on the sides, and furnished with continuous tables provided for microscopical studies. Attached to this room are also other and smaller apartments for special investigation and experiments in connection with the pathological department. The western side of this upper story is furnished with a laboratory for anatomical study, and has 14 tables lighted by a continuous arcade on the side and by numerous skylights. At the southern end of this laboratory is a smaller theatre for anatomical demonstra-

tion, capable of accommodating 80 students; and connected with it, on the south side of the story, are smaller rooms for preparation and storage. These smaller rooms on the south side in all the stories are connected by an iron service staircase, with an ample freight and passenger elevator from the basement. The staircase also is continued to the roof, which, besides being flat, is also conveniently designed for certain out-door experiments. The two main transverse partition walls of brick are filled with plastered flues of various dimensions, connected with heating chambers in the basement, and so arranged with valves that the occupant of each room may easily adjust its temperature and ventilation. These flues, after they have served as heating flues, become exhaust flues, and are continued upward above the roof, being furnished in their upper part with inducing coils. They are also used for the escape of chemical fumes from the hoods in the various laboratories. In the middle of each of these transverse walls is a large shaft furnished with inducing coils, and communicating with those apartments where a special service of exhaust is needed. These inducing coils everywhere are connected with a supplementary boiler in the basement, to be used for ventilating purposes only. There are, besides, two large boilers for heating, and a hot-water boiler connecting with an abundant hot-water service throughout the building. The basement has, also, extensive laboratories and various cold rooms, needed for experimental purposes, etc., and fresh-air passages of ample area, connecting with the hot-air chambers which extend along the base of the two main transverse walls. The laboratories are to have bare brick walls, but the lecture-halls, library, faculty-room, museum, etc., are to be furnished with plastered walls, and with pilasters and beams as suggested by the construction, so that each may possess a certain architectural character directly derived from the conditions of structure.

In concluding this description of the building, it may be of interest to many readers to know that the decorative panels of terra cotta—of which there are ten—referred to in the first part of this letter, are placed directly over the entrance portico. These panels are in two rows, of five each, the upper line bearing the following names: Paré, Galen, Hippocrates, Celsus, and Vesalius; the lower, Haller, Harvey, Sydenham, Hunter, and Bichat.

With this building, so well adapted to its great purpose, Harvard Medical School enters its second century of existence. It yet has pressing needs in the future, and, of these, endowments are the most urgent. No deserving student should be prevented from entering or compelled to withdraw before receiving his degree, by reason of too high tuition fees. These fees, however, it is apparent, can only be made lower by the endowment of professorships, the establishment of scholarships, and the creation of a large permanent fund, whose income shall be devoted to the current expenses of the school. To this end, sums yielding an income of from \$2,000 to \$4,000 for professorships are desired. The lesser amounts are, of course, attached to clinical professorships, while the more liberal endowments are desired for the scientific professorships. Scholarships for deserving and needy students should yield from \$200 to \$400 annually. At present there are but six offered in this school, four of which (\$200 each) were established by the faculty, and two (\$300 and \$200, respectively) by the will of the late Dr. Barringer, of Schenectady, N. Y. The establishment of a permanent fund—one of the most useful means of promoting the practical work of any school of this description—is also a consummation devoutly to be hoped for by Harvard's friends, a legion of whom are confident that time will witness the realization of their wishes. Then, with the new building and its added advantages, Harvard Medical School may well be considered foremost in its class.

F.

Book Notices.

The Systematic Treatment of Nerve Prostration and Hysteria.

By W. S. PLAYFAIR, M. D., F. R. C. P., Professor of Obstetric Medicine in King's College, etc. Philadelphia: Henry C. Lea's Son & Co., 1883. Pp. 17 to 111, inclusive.

THIS book consists of reprints of articles by the author, giving the results of his experience in the treatment of a limited number of cases of nervous debility by the so-called "Mitchell rest-cure." The principles of this method were first published by Dr. S. Weir Mitchell, of Philadelphia, in a brochure entitled "Fat and Blood, and How to make Them." If credit for a marked discovery in science is due to either of these authors, it is to the latter that we owe it. The present volume simply confirms the statements of Dr. Mitchell. The method of treatment employed is now familiar to every neurologist and to most practitioners of medicine. It consists of confinement to bed, massage, electrical stimulation of muscles, and systematic feeding. We fail to see any special reason why the original contributions of the author should warrant a more extended distribution than the circulation of the journals in which they originally appeared would afford.

BOOKS AND PAMPHLETS RECEIVED.

Presidential and other Addresses by Ed. C. Harwood, M. D., together with Addresses by Professor George T. Elliot, Professor Lewis A. Sayre, Professor Frank H. Hamilton, Professor A. B. Crosby, etc. New York: William R. Jenkins, 1883. Pp. 81. ["Reprints from miscellaneous periodicals."]

Statement of Facts in connection with the Quarterly Report of the Treasurer of the Medico-Legal Society of New York. Prepared for Presentation at the Meeting of September 6, 1882. By Ed. C. Harwood, M. D., etc. New York: W. R. Jenkins, 1881 [sic].

By-Laws of the Society of Medical Jurisprudence and State Medicine.

The Rights of the Insane, and their Enforcement. By Clark Bell, Esq., President of the Medico-Legal Society of New York. Pp. 23. [Reprint from the "Journal of the National Association for the Protection of the Insane."]

Secondary Batteries, and the so-called Storage of Electricity. By Roswell Park, M. D., etc. Chicago, 1883. Pp. 16. [Reprint from the "Chicago Medical Journal and Examiner."]

London Water Supply. Report, etc., No. XXV. By William Crookes, F. R. S., William Odling, M. B., F. R. S., F. R. C. P., etc., and C. Meymott Tidy, M. B., F. C. S., etc. London: Wertheimer, Lea & Co., 1883.

The Charge of "Exclusivism" as applied to Homœopaths. By F. H. Orme, M. D. Pp. 8. [Reprint from the "New York Medical Times."]

The Medical and Surgical History of the War of the Rebellion, Part III, vol. ii. Surgical History. Prepared, under the direction of Joseph K. Barnes, Surgeon-General, United States Army, by George A. Otis, Surgeon, United States Army, and D. L. Huntington, Surgeon, United States Army. First Issue. Washington: Government Printing Office, 1883. Pp. xii 986 xxix.

Thirtieth Annual Report of the Pennsylvania Training School for Feeble-minded Children, Elwyn, Delaware County.

The Doctorate Address, delivered at the Fortieth Annual Commencement Exercises of Rush Medical College. By Moses Gunn, M. D., LL. D., Professor of Surgery and Clinical Surgery. Pp. 17. [Reprint from the "Chicago Medical Journal and Examiner."]

THE
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A Weekly Review of Medicine.

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Edited by
FRANK P. FOSTER, M. D.

NEW YORK, SATURDAY, APRIL 14, 1883.

MEDICAL TESTIMONY.

WE have received a pamphlet entitled "Experts and Expert Testimony," being a paper lately read before the Medico-Legal Society by ex-Surrogate Calvin, as a part of the discussion of a paper on the subject by Dr. Wight. Even in the extemporaneous speeches made by those who follow the practice of the law, to say nothing of their written opinions and arguments, we are accustomed to find a precision of statement far above what is ordinarily met with in medical writings. We infer, therefore, that the pigeon-English with which this pamphlet abounds is not chargeable to the author, but is part and parcel of the slipshod way in which the publications of the Medico-Legal Society are managed. This is the more to be regretted, inasmuch as Mr. Calvin's remarks really embody a good deal that, properly presented, ought to prove of value to medical men when called upon to act as skilled witnesses.

That physicians usually make a poor show on the witness-stand is so obvious to every observant person that it need scarcely be stated. The same is true, however, of other skilled witnesses, or "experts," as it is the fashion to term them, although, perhaps, not to so great a degree. The vicious system that both Dr. Wight and Mr. Calvin deprecate—that, namely, of placing a witness in the position of an advocate or a partisan by the absurd practice of retaining him on the one side or the other—is undoubtedly the chief factor in bringing about the discredit in which skilled witnesses are held by courts, juries, lawyers, and the whole people. Let a man be engaged by one of the parties to an action, and he finds himself at once in the pay of that party; he can not divest himself of the idea that he is bound to make his testimony as favorable for his employers as the limitations of truth will allow. Consequently, in matters of opinion, which seem to him legitimate matters of evidence, and are apt to be so looked upon by all connected with the case, he is naturally, and, we may add, conscientiously, led to so shape his expressions as to give his side of the action the benefit of any doubt he may have in his own mind. We question, however, if more than this can be said.

All this may happen without any moral turpitude attaching to the witness, but, when it comes to those men who are desirous of being considered "experts," who, to use an expression employed in the Guiteau trial, may fairly be termed "professional experts," men who look not alone to discharging their obligations for the time being, but to putting in the most alluring bid possible for subsequent engagements of the sort—men, in short, who seek to make a business of trying conclusions before judicial tribunals, an additional temptation comes into play. Such a man's testimony, we venture to say, is utterly

worthless to the cause of justice; it may even disturb the equitable operation of the law.

But there is another stumbling-block in the way of proper medical testimony—one that, we are persuaded, comes into play far oftener, and one that rises perhaps more frequently before the guileless witness than before the more hardened. We refer to the puerile dread that medical men feel of saying "I don't know." This is easily accounted for by their daily life as practitioners and by the brutal way in which witnesses are commonly examined. It is a bugbear that ought to be faced down, however, and we would impress upon the inexperienced witness that there is no plainer or surer way to avoid falling into the snare set by a crafty cross-questioner than by a frequent resort to the answer, "I don't know."

THE INDISCRIMINATE SALE OF HYPODERMIC SYRINGES.

A CLEVER *feuilletoniste*, writing in a recent number of the "Union médicale," takes occasion to state his views as to the precautions that should be taken to guard against the development of the morphine habit in patients for whom hypodermic injections of morphine have been ordered. He admits the propriety of sometimes intrusting the administration of the injections to a friend or relative of the patient, stipulating that the person must be one whose firmness is proof against all entreaties to resort to the medication twice where it has been ordered only once. However laudable may be the desire to save the patient from the necessity of repeated visits by the physician, and the consequent increase in his pecuniary outlay, by thus relegating to a layman a therapeutic measure of this nature, it may be doubted, we think, if the practice is ever a wise one. Apart from the lack of adequate assurance that the deputy's firmness will be equal to the demands made upon it, it should not be forgotten that there are important matters of detail pertaining to the mere method of using the hypodermic syringe—points that, we fear, are too often ignored even by physicians themselves, but that are almost sure not to be comprehended by those who lack a medical training.

The writer in question then goes on to discuss the suggestion, put forward by a correspondent, that the instrument-makers should be restricted in the matter of selling hypodermic syringes to any and all purchasers, and dismisses it with the remark that the syringe itself is harmless, and that it is the indiscriminate sale of morphine that calls for repression. It seems that in Paris, as well as here, pharmacists are in the habit of continuing to fill prescriptions repeatedly and indefinitely, without the order of the prescriber, or even any intimation of approval on his part, but at the mere caprice of the patient. We infer, too, that the case is worse there than here, for it would seem that it is customary for the patient to retain the original prescription, so that he is at liberty to take it to first one apothecary and then another, in case the original dispenser declines to accede to his wishes, thus manifestly widening his chances of doing himself an injury.

This matter of apothecaries dispensing medicine repeatedly on old prescriptions is one that has again and again been

brought to the attention of the profession, and to a certain extent to that of the public, but all to no purpose. It is an abuse that our civilization ought not to tolerate, and it must be that the time is not far distant when measures will be resorted to to control it. For the present, however, we must take things as we find them, and we doubt if it is altogether wise to rely to any great extent on a suggestion to the pharmacists that they should mend their ways. In a matter where there is so little power of control over one of two methods by which a morphinomaniac may achieve his ruin, it certainly seems as if some attention ought to be given to the other. We therefore do not share the view expressed by the French writer, that it is unnecessary to restrict the sale of hypodermic syringes. True, the morphine may be taken by the mouth, but that does not seem to be so attractive to the victim as the injection under the skin.

THE TRAINING OF MIDWIVES.

IN our last issue we briefly noted the establishment of a college of midwifery in New York. It seems strange that so large a city, with a considerable proportion of its inhabitants actually dependent upon the services of midwives, should thus far have been destitute of any adequate provision for their education. We therefore look with much satisfaction upon the organization that we have mentioned.

The time has come when the profession must concede to the midwife a legitimate place in the community. It is not many years ago that the women were very few who, if at all above the abject poverty that drove them into a hospital for their lying-in, were not able to avail themselves of the services of a competent physician, but, with the continued immigration that has been going on, all this is changed, and there are now thousands of poor women who, if compelled to make the choice between the attendance of a medical practitioner and a resort to some public charity, would find themselves under the necessity of adopting the latter expedient.

Most of the midwives of New York are of foreign birth and training, if they can be said to have been trained at all, and their ways do not commend them to people of American birth. Hence many a woman that could have afforded the services of one of the guild has shrunk from the experiment, and become a burden for the time being on the community. Now, however, with the facilities that the College of Midwifery promises to afford, we may look to see a class of American midwives arise among us. The result of such a change we can not but consider as likely to prove conducive to the welfare of all concerned. We are quite persuaded that those of our profession who, for one reason or another, practice obstetrics for fees utterly out of proportion to the value of the services rendered will not suffer to any great extent by reason of the establishment of a class of trained midwives, for the latter will draw their support rather from those who now pay no fees at all than from those who are able to employ even the humblest practitioner of medicine.

It is a question if it would not be well to invest the col-

lege, in addition to its educational function, with the power of licensing midwives who are already plying their art here, or who may hereafter come to us from abroad with the intention of doing so. The auspices under which the institution starts seem to us an abundant guarantee that such discretionary and supervisory power could safely be committed to the gentlemen who make up its faculty.

THE PREVALENCE OF SMALL-POX.

SINCE the pandemic of small-pox which raged from 1870 to 1873, the country has been comparatively free from formidable outbreaks of this loathsome disease. Especially has this been the case with the larger cities, which suffered to a very great extent during more or less of the period mentioned—New York less decidedly, however, than Philadelphia, Boston, and Chicago.

During the winter just past, the most notable prevalence of the disease seems to have taken place in Baltimore, and recent accounts from that city show that it is still far from having been brought under entire control, although apparently on the decline. More recent outbreaks are reported from New Orleans and St. Louis, and among smaller communities we have heard of it at intervals through the winter. In fact, with the exception of New England, no great portion of the country seems to have escaped it altogether.

The great lesson to be learned, and that has always to be learned anew, from small-pox epidemics is, that the disease must be fought not only *in esse* but *in posse*; and, although our sanitary authorities in New York have learned it thoroughly, and do not seem to relax their vigilance to such a degree as is witnessed in many other districts, it is yet to be doubted if a vigorous outbreak of the disease would not find this city almost if not quite as ill prepared to cope with its ravages as others that suffered even more severely ten years ago.

It may not be that we are on the eve of another great epidemic, but we can hardly afford to ignore the significance of the fact that the disease is still smoldering at a number of different foci in various points of the country, communication between these points being constant. When we remember how often an outbreak among a tribe of aborigines, occupying a distant and seemingly secluded territory, has proved the starting-point of a widespread prevalence of small-pox, we can not avoid the reflection that our present danger is much more imminent.

A BOGUS MEDICAL COLLEGE AT BAY.

ELSEWHERE in this issue of the journal we publish a judgment lately rendered by the Supreme Court, in the case of the People of the State of New York against certain men representing the so-called United States Medical College. The judgment seems to be final, as we understand that no appeal can be taken to a higher court. The possibilities of the law are marvelous, however, and already the newspapers report that the individuals who figured as defendants in this suit profess themselves confident of their counsel's ability to reopen the

default on which the judgment was founded. We are quite convinced, nevertheless, that, so far as it lies with the courts, the concern stands no appreciable chance of again being clothed with power to create doctors in medicine, legally qualified practitioners, in accordance with its own inclination.

But it is very likely that some legislative jugglery will be tried, with the idea of thwarting the action of the law; for persons capable of taking part in so gross a prostitution of the powers intended to be lodged in educational institutions do not readily give up the remunerative undertaking in which they have embarked. It can not be too often repeated, therefore, or too decidedly impressed upon both the Legislature and the people, that this is not a case in which the prosecution was founded on sectarian feeling, but solely on a genuine desire to protect the community against diploma-mills, and on the self-respect that forbids any honorable profession to look on supinely in the face of a constant degradation of its ranks.

THE ORIGIN OF SPECIFIC DISEASES.

In a paper read at the recent meeting of the British Medical Association, Dr. K. W. Millican expresses his conviction that the greatest advance in our knowledge of the acute specific diseases has been in the attempt to connect them with the growth and development of living organisms, constituting the germ theory of disease. For this theory the antiseptic system of Lister, he thinks, prepared the way. The accumulation of evidence in the rural districts for the past few years he looks upon as pointing to an affirmative answer to the question as to whether these diseases can originate *de novo*. He divides the principal infectious diseases met with in Great Britain into two groups. The first of these includes typhoid and typhus; the second, measles, scarlet fever, and small-pox. Diphtheria, diarrhoea, r  theln, and erysipelas form a connecting link between the two groups. The author records his opinion that any one of these diseases may originate spontaneously, and is then capable of being transmitted by infection. He also believes it is within the bounds of possibility for one form of so-called specific disease to give rise to another form, as scarlet fever to diphtheria, or *vice versa*. His reasons are: first, that, as they must have originated before, so they may originate again; an objection to which would be that it is not in accordance with the general plan of development in nature for forms to reappear *ab initio*. The answer to this objection is as follows: Among the higher members of the animal and vegetable kingdoms, by ranging the conditions of existence the cultivator may reproduce, and render more or less permanent, a variety already existing. But the development of a species, though it may occur once, is, by the very complexity of its conditions of transformation, almost prohibited from ever occurring again. In the lowest forms of animal and vegetable life different and more elementary conditions obtain, and the inference is natural that the conditions necessary to produce a specific or permanent variation are few and simple, and hence more likely to concur. The probability of this event, it is suggested, is in proportion to the length of time occupied by the life-history of the organism. Hitherto attention has been too much concentrated upon known and recognized types of zymotic diseases, but accurate observations of abnormal cases will throw most light upon this problem. These cases may be classed under three heads. 1. Where disease of one type appears to produce disease of another type. 2. Where from a common source two or more distinct diseases appear to take origin. 3. Cases of indeterminate type, and such

as present gradations. As an illustration of the first proposition, two girls who suffered from habitual rhinorrhoea stayed at home a week after their school had been closed on account of scarlet fever, and then entered another school. Within a week an epidemic broke out in the latter school, the patients presenting every conceivable variety of diphtheria and scarlet fever, with and without rash. As an illustration of the second class, a young laboring man was attacked with typical and severe typhoid fever. Diphtheritic patches soon formed on the tonsils and pharynx. On the twelfth day of the fever abdominal rose-spots appeared. At the same time a rash of a typhous character appeared on the pectoral regions. The temperature rose to 105   F., but fell three days later to 100   F., and a crop of papules appeared on the buttocks and wrists. These became vesicular, and finally pustular, the fever again appearing with supuration. The only causes discoverable were the ordinary unsanitary conditions. The clew to such cases, in the author's opinion, lies in the doctrines of the development and origin of species. Given life, if the conditions which determine a certain line of development coexist at different times, why, he asks, should not the same line of development recur? The soil in which disease is developed, varying as it does with the constitution and susceptibility of races and individuals, will call for greater investigation than it has hitherto received.

Another important question is, Does indefinite incubation occur in well-marked and typical cases, or only when there is a struggle for existence? He summarizes as follows: 1. The processes of development and the origin of species are still going on in diseases. 2. It is assumed that organisms not essentially disease germs may become so on introduction within the human economy; that the form taken by the disease depends on the pabulum selected by the germ, and that specific characters are developed in the germs in course of time. 3. This process accounts for the *de novo* origin of the so-called acute specific infectious diseases, for abnormal cases of these diseases, and for changes of type in transmission. 4. This process is probably evolving, through the many unclassifiable and abnormal cases, fresh specific diseases for the future. As to lines of research, the author would suggest the following: 1. It is to abnormal rather than to normal cases that we are to look for the future settlement of the question. 2. In cases of infectious disease where no origin can be traced, special attention should be paid to any irregularities indicating imperfect or progressive development. 3. In cases of seeming change of type, special inquiry should be made into hereditary predisposition. 4. Further chemical, microscopical, and spectroscopical examinations of the blood should be made in fever cases, the results of typical and abnormal characters being compared. 5. Special attention should be paid to cases and epidemics of such affections as form prominent symptoms in certain well-established diseases; e. g., infectious sore throat and the question of its development into scarlatina or diphtheria.

SANITARY ARCHITECTURE.

PROFESSOR H. ROBINSON recently addressed the Sanitary Institute of Great Britain, touching upon many important points of sanitary engineering and architecture. He said that not one quarter of the dwellings of all classes were free from dangers to health due to defects with respect to drainage, water, or ventilation, which could have been avoided at the outset. An increasing public interest in such matters would enable sanitary authorities to enforce regulations more thoroughly. In cases where a zymotic disease arose from sewer gas, infected water, or other improper conditions about a house, the physician in attendance should notify the local authorities, and the

house should be marked as unsanitary upon the official map. Whenever a death occurred from typhus or typhoid fever arising from preventable causes, an autopsy should be made. The lecturer also insisted upon the very important item that all new houses, before being let, should be certified by the local authorities as sanitarily complete. We may add that, if that precaution were still further extended, requiring landlords to furnish, in all cases, certificates from the local board of health that the houses rented were in a proper sanitary condition, with a heavy penalty attached to its non-fulfillment, it would awaken to a sense of duty certain individuals who never arrive at that condition until forced by the law. In addition to this, it would effectually prevent a great deal of sickness. The local regulations in regard to such matters in Chicago, says the "Sanitary News," are excellent, but, as they have been in effect only a year, it is yet too early to notice the great benefit which must result.

Proceedings of Societies.

NEW YORK MEDICAL AND SURGICAL SOCIETY.

A STATED meeting was held October 28, 1882, Dr. B. W. McCREADY Chairman for the evening.

INTESTINAL CANCER.—Dr. FORDYCE BARKER narrated several cases as possessing certain clinical features of interest. [His remarks will be found in this journal for January 20, 1883, p. 64.]

Dr. H. B. SANDS said there could be no question but that cancer did sometimes occur primarily in the rectum in women. He had such a case under care at present in a lady forty-five years of age. He had also seen a similar case with Dr. Jenkins in which the diagnosis was verified at the post-mortem examination.

Dr. OTIS remarked that he once operated in a case of primary cancer of the rectum in a woman.

LILY OF THE VALLEY AS A THERAPEUTIC AGENT.—Dr. S. O. VAN DER POEL had noticed in late French journals that extract of lily of the valley was used largely in France in the place of digitalis, because of the tendency of this drug to produce nausea and sometimes to have a cumulative effect upon the system. In the case of a man who lost consciousness while driving in the park, and was found to have mitral stenosis and insufficiency with irregular action of the heart, Dr. Van der Poel at first found digitalis with quinine of benefit. Some months afterward the man returned, looking very pale, with loss of appetite, the heart feeble, the limbs œdematous up to the knees. Feeling that it was not best to push the use of digitalis further, the fluid extract of the lily of the valley was substituted in eight-minim doses twice a day. Marked improvement soon took place. The œdema disappeared in eight or ten days, the heart's action became more regular, and for some days afterward he had seen the patient riding out in the park. Also, in a case of internal cancer accompanied with œdema of the extremities, lily of the valley was given with the result of causing the œdema to disappear; over two months had elapsed, and, though the anæmic condition was extreme, there had been no reappearance of œdema, the lily of the valley having been given daily.

Dr. F. DELAFIELD had used the drug in a number of different cases, as in organic heart disease, chronic Bright's disease, feebleness of the heart in fever and pneumonia. It made the heart's action more regular and slower in a certain number of cases, and the general condition of the patient improved very much. He had found, like Dr. Van der Poel and Dr. Barker, that there was a great difference between different patients as to the

size of the dose demanded. For some patients, five drops of the fluid extract every three hours answered the purpose, while other patients required drachm doses. The most marked benefit which he had derived from it was in the case of a woman over seventy years of age, who was apparently about to die of pneumonia. He took the risk of stopping alcoholic stimulants altogether, and gave her twenty-drop doses of the fluid extract of lily of the valley every three hours, and after this change was made the patient did very well indeed.

THE EFFECT OF IODIDE OF POTASSIUM UPON ANEURYSMS.—Dr. R. F. WEIR raised this question by relating the following case: A lady, sixty years of age, had suffered for two years with aneurysm situated low down in the neck on the right side. When he first saw her, the aneurysmal tumor was of about the size of the large end of a hen's egg. It was pulsating quite strongly, and gave rise to a good deal of distress in the head on that side. There was an obscure history of syphilis in early life. It was not deemed advisable to operate, and she was placed upon the iodide of potassium, ten grains three times a day, with the effect of a diminution in the size of the tumor, lessening of the pulsations, and disappearance of the head symptoms. No consolidation took place in the aneurysm. A similar result occurred in another case in which there was no history of syphilis, but the patient passed from under observation, and it was not known whether the result was permanent or not. The probable explanation of the effect was lowered heart tension due to the action of the potassium salts, and not increased coagulability of the blood, as was once supposed.

Dr. DELAFIELD remarked that this was the ordinary treatment of aneurysm of the arch of the aorta. Great improvement resulted in some cases, but not in all. As stated by Dr. Weir, the probable explanation was that suggested by Balfour, namely, the effect produced by the drug upon the action of the heart, and not increased coagulability of the blood, for post-mortem examinations often showed that no coagulation at all had taken place.

Dr. G. G. WHELOCK asked whether any of the members had obtained good results in the treatment of abdominal aneurysm by this method. He had not.

Dr. DELAFIELD recalled a case of aneurysm of the abdominal aorta in which the result of the iodide of potassium treatment was markedly beneficial. The trouble in such cases usually was that the vertebræ had become eroded before the patients presented themselves for treatment.

Dr. R. WATTS remembered to have seen two or three cases treated by the administration of iodide of potassium and by rest, and he thought the latter was an important part of the treatment. In one case little apparent benefit followed the use of the drug until after the patient confined himself to bed for some time, and then he improved. In another case the patient remained abed and took the salt, and got better; she then got up and moved about, continuing to take the medicine, and had a relapse, and again obtained relief by returning to bed and taking the medicine.

Dr. SANDS mentioned the case of a woman with supposed sacculated aneurysm of the innominate artery in whom the iodide of potassium treatment afforded great relief. The tumor diminished in size instead of growing, and the pulsations became less marked. There was no evidence of consolidation of the contents of the sac to any extent. There was no history of syphilis.

RAPID DEVELOPMENT OF STONE IN THE BLADDER.—Dr. OTIS related the following case as bearing on this question: A few weeks ago a man presented himself who had had a history of urinary trouble for about sixteen years. It was characterized chiefly by frequency of urination and very little pain. He was

examined repeatedly for stone, but none was found. The meatus was divided for possible reflex trouble, but without relief. Finally he became unable to pass his urine without the aid of a catheter. Some months afterward, while using a French gum catheter, it broke, and about four inches of it remained in the bladder. Just before this the patient had been examined for stone by a competent surgeon, and none was discovered. Two weeks after the accident, Dr. Otis saw the patient. He was suffering from frequent urination with pain. Dr. Otis introduced the lithotrite and thought he struck the piece of catheter; was quite certain he had struck nothing else. But, on opening the jaws of the instrument and closing them, he found that he grasped a stone nearly an inch in diameter. He made several crushings, and removed it with Bigelow's apparatus. It was an ordinary recent phosphatic calculus. After several attempts he succeeded in drawing out the piece of catheter, which was found slightly incrustated with calculous material. In this case the active symptoms of stone came on only after the breaking of the catheter. Repeated examinations previously failed to detect any. It was probable, therefore, that this large calculus had formed within three or four weeks' time. He remembered a case where he made section through the rectum into the bladder in a rebellious case of cystitis, and introduced a tube for the passage of urine. Within a few days a very considerable amount of calculous material formed on the tube and made it difficult of withdrawal. This was repeated several times in the course of the case. Relief failed after about six weeks' trial, and apparently on this account.

Dr. SANDS remarked that he thought it quite likely stone could form within a few weeks, but this was not perfectly evident in Dr. Otis's case. Dr. Otis himself had failed to discover it in the first place, and, therefore, it might have been overlooked some time before, and still have been present.

Dr. A. C. POST remembered that when it was customary to treat strictures by external urethrotomy, and to leave the catheter in for some time, the instrument would, within a few days, become pretty well incrustated with calculous matter.

Dr. OTIS remarked that when he related this case to Dr. PETERS, the latter said he had seen but one case in which there was known to be very rapid formation of stone. It was in the case of a relative, and within two weeks the stone reached the size mentioned by Dr. Otis.

Dr. WEIR had removed a hair-pin from the bladder of a girl six weeks after its introduction, and the amount of phosphatic material which had formed on it was found to weigh forty-five grains. He had seen a case with Dr. ABBE in which the amount of phosphatic material deposited on a foreign body, which had remained in the bladder of a man for six months, was equal to one hundred and seventy or one hundred and eighty grains. He thought that the greater number of so-called re-formations of calculi owed their appearance to a nucleus of an old calculus left in the bladder.

ABSCCESS OF THE LIVER.—Dr. A. B. BALL related the following case as showing the readiness with which even a very large abscess of the liver might be entirely overlooked during life: A man was brought to St. Luke's Hospital, said to have typhoid fever. There was no evidence of this disease, however, except the presence of fever. The patient was also delirious. Both pleural cavities were about half full of fluid, and there was also some pericardial effusion. The symptoms were not sufficiently urgent to demand tapping. He lived but a few days after admission. There was found, at the autopsy, besides fluid in the pleural and pericardial cavities, an abscess of the liver containing about a quart of pus. The liver was not particularly enlarged. The abscess had been entirely overlooked during life, and, indeed, it was difficult to understand how it could have been

recognized under the circumstances. In connection with this case Dr. Ball referred to that of a man at the same hospital who recovered from an abscess of the liver, the first case of the kind which he had known to occur at the hospital. The patient's general health was pretty fair, but he was emaciated, rather sallow, and complained of pain over the region of the liver, which was evidently due to a perihepatitis. Abscess being suspected, he was aspirated at the seat of the pain, but no pus was withdrawn. After two or three weeks, bulging occurred between the ninth and tenth ribs on the right side, and there was an obscure sense of fluctuation. He was again aspirated, and this time about a pint of blood-colored pus was withdrawn. The cavity rapidly filled again, and after two days the abscess was laid freely open and dressed with Lister dressing, excepting the spray. A very large amount of pus discharged, and the man entirely recovered. No decomposition of the pus took place, and there was at no time any elevation of temperature except just before the second aspiration was made.

NEW YORK OBSTETRICAL SOCIETY.

A STATED meeting was held February 6, 1883, Dr. C. C. LEE, President, in the chair.

FLAT SPONGES FOR USE IN ABDOMINAL SURGERY.—Dr. W. T. LUSK presented some soft, flat sponges, and briefly alluded to their advantages in abdominal surgery, especially in retaining the intestines in position, and preventing the escape of liquid material into the abdominal cavity. These sponges being but little in demand, it was difficult to obtain them at the drug-stores. In order to meet the special wants of ovariologists, Mr. Angelo, corner of Thirty-first Street and Fourth Avenue, had sent for a large supply.

MODIFICATION OF FREUND'S OPERATION FOR REMOVAL OF THE UTERUS.—Dr. W. G. WYLIE, by invitation, narrated a case as follows: The patient, a woman, sixty-five years of age, who had never borne children, was sent to him last summer, suffering from uterine hæmorrhage of about one year's duration. The menopause had been passed about nine years before. The patient was very nervous, but well-nourished and apparently in good health. The hæmorrhage of late had become more severe, and she suffered from neuralgic pain extending upward on the right side, in the neighborhood of the uterus. Upon physical examination, the vagina was found to be small, the cervix rather large, and the uterus three and a half inches in depth. Considerable hæmorrhage followed the withdrawal of the sound. Slight dilatation was made, and the uterine cavity was curetted, bringing away quite a mass of broken-down tissue, which was not examined microscopically. The case was supposed to be one of so-called granulations of the lining membrane, or possibly of malignant disease. Hæmorrhage ceased for two months after the curetting, and pain was relieved to some degree. The patient was then seen also by Dr. SIMS, who believed that she was suffering simply from granular degeneration of the lining membrane of the uterus, and that Dr. Wylie had probably failed to remove all of the granulations at the former curetting. Dr. Wylie then dilated the cavity a second time, and curetted it thoroughly. Dr. WELCH examined a piece of tissue, about the size of a pea, which had been removed, and pronounced it undoubted epithelioma. Pain and hæmorrhage were again largely relieved for about a month after the second operation. The patient consented to an operation for removal of the uterus about three weeks ago, and entered Bellevue Hospital. Dr. Lusk and Dr. Polk saw her in consultation with regard to whether it were best to remove the uterus through the vagina or through the abdominal walls. As the vagina was atrophied, and as it would be difficult in operating by that method to de-

termine, as the operation proceeded, whether the tissues outside of the uterus were involved in the cancerous disease, Dr. Wylie decided to make the abdominal incision. Expecting to meet with considerable fat, and, on account of senile atrophy, with immobility, as the operation proceeded, it was thought impossible to carry out Freund's method perfectly, and the following procedure, which it was believed would require not more than half the time, was adopted. The incision extended from the umbilicus down nearly to the pubes. The uterus was moderately pressed against the abdominal wall by a Sims's repositor, introduced into the cavity, and held by an assistant. On account of the bulkiness of the fat and the distended intestines, it was necessary to lay the latter on the abdominal wall. The body of the uterus was then grasped with a strong forceps, and turned from side to side by another assistant as occasion required. By means of a simple curved needle in a holder held in the right hand, while the left served to receive the point of the needle and protect the intestines, etc., two ligatures were tied round the broad ligaments, one just outside of the ovary, dipping below the round ligament, and the other nearer the body of the uterus. Afterward a cork, fastened to the end of a stick, was then passed up the vagina, and pressure was made in Douglas's cul-de-sac, lifting the uterus upward. A trocar was passed from above down through the tissues into the cork held firmly below in Douglas's cul-de-sac, and the end of the cannula was brought out at the vulva. Beforehand, a long loop of very strong silk (soft wire would have been better) had been fixed in a hollow piece of hard rubber just the length of the vagina, so that the lower ends of the loop could be attached to an *écraseur*, and made to tighten the loop at the upper end of the tube where it came out of the tube on its anterior surface just below the end. By means of a small wire passed down through the cannula of the trocar, this loop was drawn up through Douglas's cul-de-sac into the abdomen, and held by an assistant, while the broad ligaments were cut between the ligatures placed in them, and the bladder separated from the anterior wall of the uterus down to the vaginal junction. The loop was then passed over the body of the uterus and slipped down to the vagina below, while it was being tightened by the *écraseur*, worked by an assistant at the outlet of the vagina. At the same time, the uterus was held upward by strong forceps claspings the fundus. The object of this loop ligature being to ligate all vessels not included in the outside ligature, first put in the broad ligaments and to grasp the upper end of the vagina just below the cervix, so that, when the whole uterus was enucleated, there would be no bleeding points, and only three ligatures left. When the loop was tightened, the bleeding was entirely stopped. By means of curved scissors, the uterus was readily cut off just above the loop ligature. It was then discovered that a small part of the cervix had been included in the loop, and the uterus cut off just at the vaginal junction. There was no bleeding at this time; but, in attempting to elevate the stump with a large pair of forceps, the loop ligature slipped up over the stump. It was withdrawn from the vagina and the cork plug put in, and the stump pushed upward, and, the cork being quite large, the upper end of the vagina was put on the stretch and distended. While the stump was held up and steadied, by means of the same curved needle used on the broad ligaments, armed with a ligature and held in Sims's needle-forceps, two ligatures were passed on either side of the stump, dipping down into the vagina in close proximity to the cervix. After these were tied and the cavity cleansed, one bleeding point was found in the left broad ligament, a short distance from the ligature just tied. A third ligature was passed from before backward with the curved needle, and, when tied, all bleeding ceased. The cork plug held by the assistant pushing up the stump made the passing of

the ligatures easy, and lessened very much the risk of including the ureters in the ligatures.

The uterus, upon examination, was found entirely free from cancer, except the lining of the body, which was pretty well covered by a growth that filled and somewhat distended the cavity, and the point of excision was full half an inch or more below the lowest part diseased. The small part of the atrophied cervix left as a stump was found perfectly healthy, and it was decided not to remove it. After waiting some time, to be sure that no points were bleeding, a drainage tube was put in and the wound was closed, and the operation completed in about one hour and forty-five minutes, with the patient in good condition. Three hours later she came out from the anæsthetic, and had a good pulse of 96. She was clear mentally, and did perfectly well during the first twenty-six hours after the operation, the temperature not rising above 101° Fabr., nor the pulse above 108. At the end of that time she became slightly delirious, picked at the bed-clothing, and complained of dryness of the throat; there was slight dilatation of the pupils, the respiration and the pulse became more rapid, and she died thirty-six hours after the operation. The patient, being addicted to the use of opium, received one hundred minims of Magendie's solution in the twenty-four hours, and, by mistake, also a twelfth of a grain of atropine in divided doses, which might in part account for certain of the symptoms, but Dr. Wylie could hardly believe it could have been the cause of death, nor was anything found at the post-mortem examination which would account for the fatal issue. Peritonitis was not apparent, and there had been no hæmorrhage. Dr. Welch had examined the specimen, and pronounced it epithelioma.

Dr. Lusk remarked that there was one important point connected with the case which Dr. Wylie had not mentioned, namely, that it was one of undoubted primary epithelioma of the uterus—a condition which some pathologists of large experience doubted ever existed. Freund found that by means of pressure with the *colpeurynter* for a week before the operation the uterus could be elevated even as high as the umbilicus. At the time of the operation the ordinary vaginal tampon was introduced, and, with the uterus thus lifted above the brim of the pelvis, one of the difficulties of extirpation was removed.

Dr. WYLIE said he could fully appreciate the advantage of the procedure, and, while he had not then heard of its being practiced by Freund, he thought of resorting to tampons in the present case to render the uterus more movable, but she was so nervous that he decided not to do so. During the past few months he had several opportunities to observe how quickly and decidedly forcible traction upward on the uterus during operation was followed by shock, and he thought that this might be very much lessened, if not obviated, by getting the uterus accustomed to being forcibly elevated before operating.

Dr. J. E. JANVRIEN remarked that it was a difficult matter to apply the third ligature in the manner practiced by Freund for controlling hæmorrhage from the uterine arteries, whereas the method adopted by Dr. Wylie would seem to be very easy of application and quite efficacious. In a case in which he performed the operation he made use of the former method, and experienced considerable difficulty in carrying it out. In reply to a question by the President, he said that his own patient died at the end of thirty-six hours.

The PRESIDENT remarked that he knew of no other case in New York in which the operation had not terminated fatally. The danger of a fatal issue in these cases was enhanced by the fact that, owing to the usual effects of malignant disease upon the general health, the patient was less able to withstand primary and secondary shock than where the operation was done for non-malignant disease.

The proper field for hysterectomy, as had been suggested by Dr. Polk at a previous meeting of the society, seemed to him to be limited to such cases as sarcomatous growths, where the disease was confined to the uterus itself and was not in danger of recurring after the operation, and where the patient's general condition was not depraved from the constitutional effects of the disease, and was better able to withstand the dangers incident to the operation itself. The mortality attending Freund's operation, as reported by all surgeons except by the author himself, had been so great that American physicians had little confidence in it.

NEPHRECTOMY IN A CASE OF SINGLE KIDNEY: METHODS OF DIAGNOSIS.—Dr. POLK narrated a case of this sort. [Dr. Polk's paper will be found in this journal for February 17th, p. 171.]

The case was made the special subject for discussion at the next meeting of the society.

HENRY J. GARRIGUES, M. D.,

B. F. DAWSON, M. D.,

FRANK P. FOSTER, M. D., *ex-officio*,

Committee on Publication.

PATHOLOGICAL SOCIETY OF PHILADELPHIA.

A REGULAR meeting was held January 11, 1883, Dr. JAMES TYSON, President, in the chair.

CONDYLOMATOUS TUMOR OF THE LABIUM.—Exhibited by Dr. NANCREDE for Dr. C. M. SELTZER. Mrs. ——— contracted syphilis nine years ago from her first husband. Has had specific treatment at intervals, but never prolonged beyond a few weeks each time. Condylomata and ulcerations around the vulva, anus, and perineal region were first noticed about three years ago. She first came under his observation and treatment June 1, 1882, at which time symptoms of her disease were very pronounced, such as cachexia, nervousness, nocturnal headache, ulcers on various portions of the body, numerous condylomata, of which the specimen exhibited was the largest, being a cauliflower-like excrescence springing from the left labium majus, having a pedicle about two and a half inches broad. The clitoris was hypertrophied, forming a knob one inch in diameter. There was urinary incontinence, and, consequently, severe excoriations of the external genitals. Potass. iod. and hydrarg. bichlorid. were given, upon which there was pronounced systemic improvement. Local treatment failed to remove the condylomata; hence, on the 13th of November, two double ligatures were passed through the pedicle of the largest so as to divide it into three parts; they were then tied tightly, and the mass removed and the stump cauterized with nitric acid. The clitoris was so sensitive, even under profound anæsthesia, that it was thought best not to remove it. The patient made a good recovery in ten days, including the cure of the urinary incontinence. Her second husband, to whom she had been married about six years, had no evidence of having syphilis. Her only child by her first husband had stricture of the rectum and obstinate fissure of the anus, improvement of which only began upon the recognition of their specific origin, and the consequent line of treatment. Dr. Nancrede suggested that this specimen be referred to the Committee on Morbid Growths, since two somewhat similar specimens, which were myxomatous fibromata, had been presented by Drs. Formad and Baer. Although not due, as in this instance, to the irritation of some sore or abrasion by the discharges, etc., in a syphilitic, yet probably their histological structure was identical.

SMALL TUMOR OF THE HEAD OF THE PANCREAS.—Presented by Dr. E. T. BRUEN. The mass herewith exhibited occupies the head of the pancreas, and is about as large as a pullet's egg—i. e., about two and a half inches in diameter. When re-

moved from the cadaver, it was closely adherent to the common bile duct. The growth is of a colloid nature, but its histological character is as yet unsettled by microscopic examination. There were no secondary deposits in any other viscera, as is the rule in colloid growths. The patient was a male, aged sixty-five years. For two years prior to date of his death there had been intermittent attacks of jaundice. This had been attributed to catarrh of the biliary duct, which had developed itself during an attack of malaria. The case was under his care for two months. At first the symptoms of chills and fever led to treatment for malaria, but, as the jaundice gradually deepened, treatment for the supposed catarrhal state of the bile duct was instituted. The futility of a well-directed and usually successful treatment was the special indication of some more substantial cause. Hepatic trouble or biliary calculi were readily excluded in this case, but there was nothing to fasten suspicion on the pancreas. There was constipation, with clay-colored stools. There was a febrile movement of a hectic type—the so-called hepatic fever, accompanied by irregular chills. The intestinal indigestion, so valuable a symptom in many cases of pancreatic disease, was not marked. Indeed, without exception, the negative results of the clinical record were of the most discouraging character. The case was presented because each case of pancreatic disease ought to be recorded, so that many cases viewed collectively might contribute to the clearness of a future distinct picture of pancreatic disease.

Dr. FORMAD said that he had now on record the notes of five or six cases of cancer of the pancreas with marked jaundice where he had made the autopsy. It seemed to him that the jaundice was most persistent in primary pancreatic carcinoma from pressure on the bile duct. He was present at the autopsy of this case, and did not think that the tumor was carcinomatous, as there would then probably have been secondary growths in the liver. The growth was probably a cystic colloid.

Dr. BRUEN would like to call the attention of the society to the fact that he had, about a month ago, presented a specimen of carcinoma of the pancreas, and had then referred at length to some forty cases of jaundice due to primary carcinoma of the head of the pancreas, lately reported by another observer. From these records it was demonstrable that jaundice was an invariable symptom of primary hard carcinoma of the head of the pancreas, while it was uncommon when the disease was secondary, or affected other parts of the organ.

DIAPHRAGMATIC HERNIA.—Exhibited by Dr. JAMES TYSON. The patient from whom these specimens were removed was a German, between twenty-seven and twenty-eight years of age. He first consulted Dr. Tyson June 21, 1880. He had then been ailing since February, 1878, and had been unable to work in that time. At the date referred to he was stretching, when his wife suddenly pretended to tickle him. He quickly threw down his arms, and at that moment felt a sensation of "pain on the left side in the neighborhood of the heart." At the same time he felt faint and cold. In five or ten minutes these sensations passed away, but he remained very much frightened. When first visited, he complained of shortness of breath and beating of his heart, although the latter was better when he was quiet. He could not even walk across the floor without becoming completely out of breath, but he said he was not short of breath when the accident first occurred. He had also a peculiar puffing expiration, which did not occur, however, with every act of expiration, but once in four or five. This was so characteristic that one of his friends, to whom Dr. Tyson sent him, spoke of him as his "puffing German." There was no cough. Physical examination revealed, on inspection, almost total absence of movement of the chest-wall in the upper half, the respiration being almost purely abdominal. The upper percus-

sion border of the heart corresponded with the junction of the third rib with the sternum, and the right border with the middle of the sternum. The apex beat was in its normal position, but was more diffuse than in a strictly normal state. Pulmonary percussion appeared normal except below the left scapula, where resonance was less than in the corresponding situation in the right side. Vocal fremitus was, however, impaired over the whole of the left lung. There were no abnormal cardiac murmurs. His pulse was 72 after the examination was over. He was treated at various times with digitalis, bromide of potassium, chloral, tonics, etc., and even a blister was put over his heart, with the view that there was some cardiac or pericardial affection, although the physical signs were wanting. There was no improvement, although at times the dyspnoea, which was the most distressing symptom, seemed somewhat less; but it always interfered with any exercise whatever. He would walk sometimes half a mile with great difficulty. Notwithstanding this, he was encouraged to take exercise. His sleep was unsatisfactory; he would dream, and wake up in a great fright. He could always lie upon his left side with more comfort than upon his right. He continued under observation for a year. In the latter part of August, 1881, he seemed a little better. After that Dr. Tyson heard nothing of him until he learned of his death, which occurred December 15, 1882, from obstruction. At the autopsy it was ascertained that about twenty inches of the large intestine, with its corresponding mesentery and almost the whole omentum, had ascended through the œsophageal opening of the diaphragm into the left pleural sac, encroaching upon the space occupied by the left lung until the latter was compressed into the apex of the left pleural sac and was reduced to a cylindroid mass about fifteen centimetres in length and half as many in diameter. There was no hernial sac, the opening being that for the œsophagus. The case would, therefore, be technically called one of *hernia diaphragmatica spuria*. The heart was displaced to the right, but was otherwise normal; the liver was slightly fatty, but the other viscera were normal. It is not unlikely, at the moment referred to in the history when the patient threw down his arms, that a small portion of the omentum or mesentery slipped through the œsophageal opening, and that subsequently, and more or less gradually, the vacuum tendency of the pleural sac in each act of respiration caused the remainder of the mass to be drawn in until the entire cavity was occupied. This accounts for the fact that there was no dyspnoea at the beginning, but that it gradually increased as the thoracic space was intruded upon. In volume lxxxi, 1882, of Virchow's "Archiv" there was an exhaustive article on Diaphragmatic Hernia, in which two hundred and ninety-one cases are collated. In a somewhat hasty examination of this paper Dr. Tyson had been unable to discover a single case so long under observation as this—nearly four years. Many cases were discovered at the autopsy, and had been unsuspected; others were congenital, and others were traumatic.

Dr. FORMAD related some facts confirmatory of the history given by Dr. Tyson.

Dr. BRUEN asked if there had been any hiccough. If so, was there any dysphagia with solid food? Finally, did the physical signs suggest pneumothorax?

Dr. ROBERTS made some remarks with reference to the diagnosis and to the possibility of laparotomy in similar cases. He also asked whether the symptoms just preceding death were those of strangulation.

Dr. DAVIS referred to thirst as a prominent symptom, according to Lawrence.

Dr. TYSON replied that Dr. Formad had told him that there was decided hiccough. There was no true tympany with the absence of the vocal fremitus. Nothing gave rise to any sus-

picion of its true nature. Thirst was marked. There was no dysphagia.

ULCER OF THE STOMACH IN THE ANTERIOR WALL; ADHESIONS TO THE ABDOMINAL WALL; HÆMORRHAGES AND PAIN; DEATH FROM MORPHINE HABIT.—Exhibited by J. H. MUSSEY, M. D. He was indebted to Dr. J. Henry Mussey, of Lancaster Co., for the privilege of presenting this specimen. The following history was abstracted from his notes: J. J., aged seventy-one years, millwright. Fourteen years before his death he was attended by the doctor for hæmatemesis, occurring after three days of nausea. Over a pint of blood was vomited, and considerable was discharged by stool the next day. In ten days he returned to work, and enjoyed good health for two years, with the exception of occasional attacks of indigestion. Then a recurrence of nausea, followed by a profuse discharge of blood per anum, occurred. He made a full recovery, but pain after eating was now noticed. Two years subsequently he bled very much from a wound of the foot; was much prostrated thereby. This was succeeded by severe pain after eating, with marked epigastric tenderness. The constant use of narcotics alone gave him relief. November, 1873, he was again under Dr. J. Henry Mussey's care, and was treated for gastric ulcer, without any avail, save when he exhibited narcotics. He resorted to the use of morphia, and continued its use during the remainder of his life. Change of diet did not influence the pain, and he partook of a laborer's fare. In 1877, a small tumor to the left of and several inches above the umbilicus—hard, tender, and apparently involving the abdominal wall—was discovered. For several years he worked in a country saw-mill, using one drachm of morphia a month. Heavy lifting aggravated his pain. August, 1882, the doctor was again called in, to find the patient confined to bed, much emaciated, and with complete anorexia. Death took place three weeks later, during which time he had taken no nourishment, but had used morphia freely. He took the drug from habit, as his friends thought that he suffered but little pain. The only anatomical alteration noted at the autopsy was the change in the stomach. The organ was enlarged and contracted (hour-glass) toward its fundus. The anterior wall, one third of the distance from the fundus, and at the point of constriction, was adherent to the abdominal parietes to the left of the median line, three inches above the umbilicus. Opposite to the point of adhesion in the mucous membrane there was a small ulcer, two lines deep and six in diameter, with clean-cut edges, a healthy floor, and surrounded by cicatricial tissue for a radius of one inch. Undoubtedly the ulcer would have healed entirely had not the morphia habit cut off the patient.

Remarks by Dr. J. H. MUSSEY: It is plausible to theorize that the first hæmorrhage, taken with the profuse foot hæmorrhage, was due to the patient having been of a hæmorrhagic diathesis, and that the second gastric hæmorrhage was from the same cause, and was attended by a hæmorrhagic infarct, with subsequent development of the ulcer. Especially is this possible as it was only after the second hæmorrhage that pain occurred, and this symptom is never absent "except in cases which run a rapid course" (Da Costa).

Dr. NANCREDE related the case of a "bleeder" then under his care, a female infant only thirteen months old, where death was imminent from epistaxis.

Dr. DUNN made some remarks on the general subject of hæmophilia and its treatment.

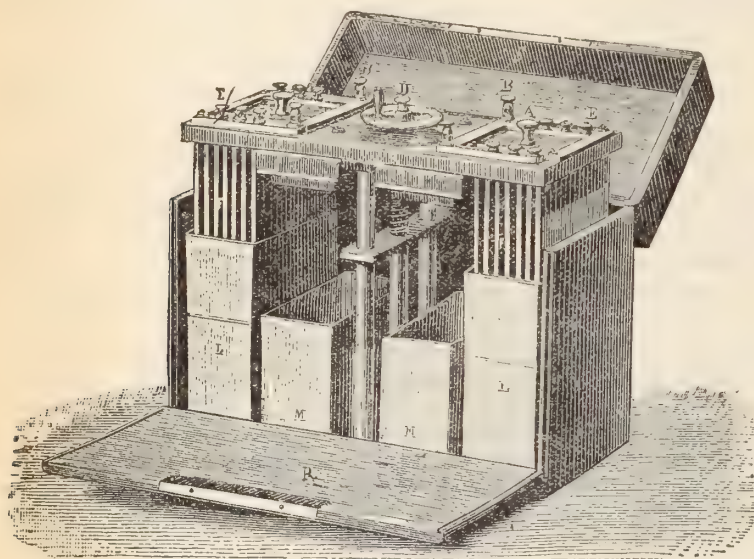
C. B. NANCREDE, M. D., Recorder.

ESMARCH'S BANDAGE AND MALINGERING.—It is related in a recent work by Dr. Derblich, of the Austrian army, that Esmarch's bandage has been used in the case of a man who feigned a contracture of the leg of six years' standing, with the result of detecting the imposture.

New Inventions, etc.

A NEW CAUTERY BATTERY.

[We are indebted to the "Scientific American" for the following abstract, from "L'Électricien," as well as for the cut with which it is illustrated.]



M. Chardon, a French manufacturer of electrical apparatus for medical and surgical purposes, has recently devised a pile which is specially designed for the cautery, doing away with some of the serious inconveniences inherent in other piles of the kind that have hitherto been employed. In this new apparatus, which is shown in the annexed cut, the elements are inclosed in an easily transportable box or case, and are so constructed that there shall be no danger of the fluid's spilling. It takes but a few minutes to mount and use the cautery, and but a few minutes also to close up the apparatus again to make it transportable.

The apparatus consists of a box, whose cover, S, and one side, R, are hinged, and within which is fixed a metallic support formed of three vertical columns united at their upper extremity by a horizontal crosspiece. Into the middle column, which carries a thread, enters a screw, while into the other two, which are smooth, enter two cylinders, H, that act as slides. This screw and these slides support, by means of a properly arranged device, a wooden tablet on which are fixed all the pieces that are necessary for the working of the apparatus. The head of the screw traverses this tablet and terminates in a wheel, C. It follows, from the well-known properties of the screw, that the tablet, which can not revolve because of the two slides, H, may be made to rise or descend by turning the wheel, C, in one direction or the other. Beneath the tablet and toward the extremities, at F, are situated the zincs and carbons. There are three of the former on each side, with four alternating carbons. These seven plates together do not take up much space in the box, but leave room for two quite thick sheets of rubber, I I, and four ebonite troughs. These latter are of different heights, those (L) containing the exciting liquid (solution of bichromate of potassium and sulphuric acid) being nearly as high as the external case, and the others, M, being of about half the height.

When it is desired to use the pile, the tablet is raised by revolving the screw, and the troughs, L, half full of liquid, are placed against the extremities of the box and secured in position by means of the troughs, M. Then, by revolving the screw in the opposite direction, the tablet is made to descend, and the zincs and carbons are caused to enter the liquid gently without splashing. If the circuit is closed, the current then begins to pass. The intensity of the latter is regulated by plunging the zincs to various depths into the liquid.

When the operation is terminated, and it is desired to carry the

pile to another place, the tablet is raised high enough to free the extremities of the carbons and zincs, and the respective positions of the troughs, L and M, are changed. Then, by reversing the motion of the screw so as to cause the tablet to descend, the sheets of rubber, I, are pressed against the edges of the troughs containing the liquid with sufficient firmness to form hermetical covers to them. The case may then be closed preparatory to removal. It may be easily seen that no liquid can flow out, owing to the fact that the troughs that contain it are tightly closed, and that the small portion that drips from the zincs and carbons can not injure the rest of the apparatus, inasmuch as it is caught in the troughs, M.

The zincs and carbons employed are about fourteen centimetres in width in each direction. The three zincs on each side, as well as the four carbons, are united for quantity in such a way that two elements of wide surface are obtained. The terminals that are observed on the upper side of the tablet permit of employing at will one or the other of the elements only. On the contrary, the two elements mounted for tension may be used by attaching the conducting wires to one of the terminals of each of the elements, communication being established on another hand by a wide band of metal.

The carbons are platinized, and, toward their upper part, are invested with a layer of copper, to which is soldered the strip of metal that unites the four carbons of each element to form a single one. This arrangement, which secures a continuity of the contacts, is of a nature to keep the resistance of the pile constant, and, consequently, to contribute to the constancy of the currents.

Although this apparatus has been introduced but a short time, it is being used in some of the hospitals at Lyons, Montpellier, and Brussels, and, if we mistake not, at the Bichat Hospital in Paris.

[It may be remarked that the mechanism for raising and lowering the elements is not wholly new, being nearly if not quite the same as has long been employed by Mr. Drescher, of New York.]

Miscellany.

PHTHISIS AND THE TUBERCLE BACILLUS.—Dr. T. Henry Green (Physician to Charing Cross Hospital, and Senior Assistant Physician to the Hospital for Consumption and Diseases of the Chest, Brompton), in concluding a lecture on the relation of this micro-organism to phthisis, published in the "British Medical Journal," observes, with regard to treatment: What is the practical teaching of Koch's discovery with reference to the prevention and cure of phthisis? If our pathological conclusions be even only partially true, they clearly indicate, I think, the necessity of carefully distinguishing between the bacillus and the conditions which favor its influence, and of directing our treatment to both. We must endeavor to prevent the access of the organism, and, if possible, to destroy it after it has effected an entrance, and we must also strive to maintain a healthy condition of the pulmonary tissues, and thus prevent the occurrence of that tendency to apical stagnation which appears to be such an important, if not essential, factor in the disease. The latter of these indications is, I believe, as important as the former; and it is, perhaps, rather in danger of being lost sight of in the very natural eagerness with which attention is now being directed toward the bacillus.

"Firstly, then, with regard to the condition of the lung which favors the influence of the bacillus. Here it is only necessary to remark that whatever promotes a vigorous state of health will, by improving the condition of the blood, the nutrition of the vessels and activity of the circulation, and the exercise of the respiratory function, tend to prevent that stagnation and transudation in the highest portions of the lungs, the etiological importance of which we have so especially insisted upon. The value of treatment which has for its object the ful-

filament of these indications in the prevention of phthisis it is, I believe, difficult to over-estimate; and its usefulness is almost equally valuable when the disease is established. I can not but think that, in the mean time, such treatment promises better results than any attempts to attack the specific organisms. Secondly, the tubercle bacillus. The consideration of this naturally divides itself under two heads: (a) the prevention of its access, and (b) attempts to destroy it when the disease is developed. (a) The prevention of the access of the bacillus. The present position of our knowledge appears to point to the desirability of adopting measures for the disinfection and destruction of the sputa of patients suffering from phthisis; and perhaps, also, of the alvine secretions, when there is any evidence of tuberculous disease of the bowel. It also raises the question as to how far it is desirable to allow individuals who are not consumptive, but who inherit a phthisical tendency, and especially when such individuals are out of health, to intimately associate with those who are suffering from the disease. If our pathology continues to move on the same lines, this subject may become one requiring the consideration of those who manage our hospitals. (b) The destruction of the bacillus after the disease is established. Attempts to do this are made principally by means of antiseptic inhalations. This is the fashionable, though perhaps somewhat misdirected, therapeutics of the day. A respirator charged with some antiseptic, such as creasote or carbolic acid, is now being largely used in the treatment of phthisis. Although I should be very sorry to unfairly criticise such treatment, I can not but think that the evidence that its usefulness is in any way dependent upon its destruction of the bacilli, or of any infective substance which they may originate, is wanting. It seems to me much more probable that such inhalations, when beneficial, are so mainly through the favorable influence which they exercise upon the mucous membrane and secretion; and when, as is so often the case, they are combined with chloroform, they will also act as direct sedatives. What we want are cases of early and progressive phthisis in which antiseptic treatment alone, without adjuncts, is followed by marked improvement. When it can be shown, e. g., that the pyrexia of early phthisis is reduced by such treatment, we shall have evidence of considerable value pointing to the influence of the germicides upon the bacillus. We are now making some observations in this direction, but, at present, with negative results. While, therefore, I do not wish to be understood to discourage the treatment of phthisis by antiseptic inhalations, I think we must be careful as to the interpretation we put on their results. The treatment of phthisis and of other pulmonary diseases by means of medicated atmosphere has been greatly stimulated by Koch's discovery. Such treatment has undoubtedly been too much neglected in the past, and its prosecution promises the best results. But, in the mean time, I think we have no evidence that we are able by such means to influence the tubercle bacillus; although, if Koch's investigations be true, the discovery of some agent which, by destroying it, will arrest its injurious influence, is obviously the greatest desideratum."

CEREBRAL DYSPESIA.—In the "British Medical Journal," Dr. John S. Main strongly insists on the purely cerebral origin of many forms of dyspepsia, where the patient is neither over-indulgent, nor intemperate, nor addicted to hurrying over meals, nor accustomed to eat coarse or unwholesome food. The cerebral form of dyspepsia is well seen, in many cases, where a healthy man, with a good appetite, suddenly receives bad news when sitting down to a meal. "But, perhaps, of all conditions acting on the brain in this manner, and through the brain on the stomach, no one is more injurious, or more jarring to the cerebral elements, than uncertainty, and the worry caused by the same, more particularly in preternaturally irritable subjects. In fact, it is in connection with this same worry that the form of dyspepsia I have at present under consideration most frequently occurs. The mind in such cases preys upon itself; the cerebral elements seem to get jarred and out of gear: and with this condition the stomach sympathizes. But, in addition to worry, the habitual practice of calling into action the 'reserve fund' of the cerebrum, as already mentioned, will bring about the same consequences—namely, cerebral fatigue and exhaustion, indicated chiefly by preternatural irritability, this condition, sooner or later, telling upon the digestive organs. Having said this, it

is almost unnecessary to add that such cases are most commonly met with among those who are engaged in the hottest part of the 'battle of life,' or 'struggle for existence'; and, again, among these, chiefly those whose business or profession leads to much anxiety, uncertainty, or over-stretching of the mental powers. In over-aspiring, over-ambitious natures 'hope deferred' may bring about the same results; as, according to the biblical expression, 'it maketh the heart sick.' My attention was drawn to several cases of dyspepsia, connected with one or other of these conditions, some time ago; and what made me more strong in my view of these cases being cerebral, and not stomachic at all in their origin, was their obstinacy under all forms of natural treatment. Latterly I have found that the only treatment capable of doing these cases any permanent good is a change, in the wide sense of the term—a relaxation from business or study; and as regards medicines, not such as are meant to act on the stomach directly, but those meant to act on the cerebrum. Among these I have found the most useful to be the bromide of ammonium, or bromide of potassium—preferably the former—given in a sufficient dose at bed-time to secure a good night's sleep, this being often very indifferent, and so tending to complicate the case; and, combined with this, to be taken three or four times during the day, such medicines as are known to have a building-up effect on the nervous system. Among these, the most useful being phosphorus, or the hypophosphites, and cod-liver oil. Arsenic and quinine are often also useful, and a generous diet is always indicated. Unless the stomach has passed into a state of disease (which it may do, if overtaken when in this weakened state), any of these medicines are generally well borne. It will be well to bear in mind, however, that, if the mucous membrane of the stomach be in a state of irritation, quinine, arsenic, phosphorus, the hypophosphites, and sometimes even cod-liver oil, are generally inadmissible."

A JUDGMENT AGAINST THE UNITED STATES MEDICAL COLLEGE.—New York Supreme Court. Special Term. The People of the State of New York, Plaintiffs, against Robert A. Gunn, Benjamin J. Stow, Paul W. Allen, Alexander Wilder, Thomas A. Granger, Mark Nivison, and Dennis E. Smith, Defendants. Judgment, April 4, 1883.

This action having been brought to trial upon the issue of law raised by the plaintiffs' demurrer to the defendants' second defense contained in their answer herein, and beginning with the words, "Second, And for a further and separate defense," and ending at the demand for judgment: and the said demurrer having been, by order of February 5, 1883 (settled and filed March 12, 1883), sustained, with leave to defendants to answer over on payment of costs: and the costs having been taxed at \$108.13: and the order having provided further that unless the defendants pay said costs and amend their answer within twenty days, plaintiffs should have judgment absolute against defendants as for want of an answer: and the defendants having failed to pay said costs, or amend said answer, within the time aforesaid,

Now, on motion of Leslie W. Russell, Attorney-General, attorney for the plaintiffs, it is

Adjudged: That the said defendants are not and have not been incorporated as a medical college, with the franchises or powers of a medical college: and that the said United States Medical College, mentioned in the complaint, is not and never has been incorporated as a medical or surgical college, and does not possess the powers or franchises of a medical college:

And it is further Adjudged: That the defendants, and each of them and all persons acting with or under them or any of them, be and they hereby are enjoined and restrained from acting, or assuming to act, as an incorporated medical or surgical college, and from usurping, or exercising the power, functions, or franchises of an incorporated medical or surgical college: and from maintaining or assuming to maintain, for gain or otherwise, a medical or surgical college: and from granting diplomas or certificates of graduation to medical students or practitioners, purporting to be granted by a medical or surgical college: and that the plaintiffs, The People of the State of New York, recover of the defendants, Robert A. Gunn, Benjamin J. Stow, Paul W. Allen, Alexander Wilder, Thomas A. Granger, Mark Nivison, and Dennis E. Smith, the sum of One Hundred and Eight and 1/10 Dollars, costs and dis-

bursements taxed as aforesaid: and that plaintiffs have execution therefor.

(Endorsed, Filed April 4, 1883.)

A copy.

The first practical result of this judgment is realized in the action of the Board of Health of this city, announcing that death certificates signed by graduates of this so-called college will not be recognized. Deaths so certified will be turned over to the coroners for investigation.

NEW ETHICAL ORGANIZATIONS.—The following gentlemen have agreed to form an association to uphold the national code of medical ethics, and to resist any modification of this code that does not emanate from the body in which it originated: John G. Adams, James Anderson, James H. Anderson, William B. Anderton, E. V. Agramonte, S. Busby Allen, Ygnacio Alvarado, Aug. A. Arango, E. A. Arnold, E. S. F. Arnold, Glover C. Arnold, S. S. Bancker, James L. Banks, Wooster Beach, C. M. Bell, E. W. Bennett, Edward J. Bermingham, William N. Blakeman, Nathan Bozeman, Charles K. Briddon, Daniel Brown, L. L. Bradshaw, J. H. Branth, M. Walter Brooks, Joseph D. Bryant, Thomas H. Burchard, E. W. Burnett, Frederick A. Burrall, John Burke, Charles W. Büchler, Aug. F. Büchler, Charles S. Bull, W. T. Bull, Francis D. Buck, Martin Burke, E. M. Cameron, R. A. Caldwell, G. Campbell, Josiah F. Cadmus, James S. Carradine, David C. Carr, Alonzo Clark, Clement Cleveland, Porter F. Chambers, Robert F. Chapman, Jean F. Chauveau, Thos. C. Chalmers, T. M. Cheesman, Thomas F. Cock, William S. Conover, Henry C. Cooper, Stacy B. Collins, David C. Cocks, David C. Comstock, Garret Cosine, George H. Combs, Charles E. Cross, Joseph S. Crane, P. W. Cremin, H. Holbrook Curtis, John C. Dalton, Samuel W. Dana, Francis Delafield, D. Bryson Delavan, Frederick S. Dennis, Ellery Denison, Richard H. Derby, Wm. Detmold, Edward M. Donlin, A. H. Doty, Abram Dubois, M. B. Du Bois, Coert Du Bois, Milo M. Dunton, John Dwyer, R. Eichler, C. Ruxton Ellison, J. O. Farrington, J. E. Ferdinand, M. D. Field, Thos. C. Finnell, Austin Flint, Austin Flint, Jr., M. T. Fleming, Jas. W. Flynn, Percival H. Flynn, Joel Foster, George C. Freeborn, J. Gordon Frazer, David Franklin, J. P. Garrish, T. T. Gaunt, J. W. S. Gouley, O. A. Gorton, Horatio Gomez, Gaspar Griswold, Frank H. Hamilton, Edwards Hall, Samuel Hall, W. H. Hall, W. L. Harding, Geo. T. Harrison, S. D. Harrison, J. J. Henna, Geo. A. Hershell, A. J. Henriques, S. Augden Hill, Chas. Hitchcock, John H. Linton, George B. Hikok, Abbott Hodgman, Samuel T. Hubbard, Francis Huber, F. Hustace, Jas. B. Hunter, Joseph J. Hull, John B. Isham, W. H. Jackson, E. G. Janeway, J. C. Jay, Jr., J. E. Janvrin, S. Beach Jones, W. W. Jones, Adolph Kessler, T. Kenneth, B. M. Kerney, J. B. Lawrence, Chas. Laight, J. R. Leaming, Chas. A. Leale, Arthur J. Leary, Noah C. Levings, R. P. Lincoln, B. A. Lindsay, Jared Linsly, Wm. T. Lusk, P. J. Lynch, Arch. Lybold, J. F. Lyon, Francis Markoe, Wm. Thomas Markoe, Thos. H. Manley, David Magic, W. S. Mayo, Chas. McBurney, B. W. McCready, Jas. W. McLane, Calvin B. McQuesten, T. S. P. Miller, R. L. Miranda, J. L. Minor, H. W. Mitchell, Joseph A. Monnell, G. H. Möller, Jr., Robert S. Morris, Wm. J. Morton, Bowditch Morton, A. B. Mott, Valentine Mott, S. S. Mulford, Chas. E. Nelson, Robert Newman, Henry D. Nicoll, Henry D. Noyes, T. F. O'Brien, R. J. O'Connell, William O'Donnell, Joseph O'Dwyer, Samuel H. Orton, Willard Parker, Willard Parker, Jr., E. H. Peaslee, Geo. L. Peabody, Henry T. Pierce, P. B. Porter, Samuel S. Purple, John Purcell, Henry F. Quackenbos, John J. Reid, Ira B. Read, Pio Rengifo, Chas. F. Roberts, Thomas S. Robertson, Alval Rowe, Lewis A. Sayre, Lewis Hall Sayre, J. Stanford Sayre, G. A. Sabine, T. T. Sabine, George Scott, W. D. Schuyler, Frederick S. Sellev, Henry Sheppard, John Shradly, Lewis Shuitze, Chas. E. Simmons, O. G. Smith, Stephen Smith, J. Lewis Smith, James O. Smith, Chas. D. Smith, Hanbury Smith, F. P. Stevens, Isaac E. Taylor, James R. Taylor, Robert Taylor, J. A. Ten Eyck, Seligman Teller, T. Gaillard Thomas, J. Tomlinson, John G. Truax, Carlos T. Tucker, M. E. Tully, Marcus C. Tully, E. G. Tuffs, Wm. A. Valentine, Henry Van Arsdale, M. D. Van Pelt, Edward H. Van Winkle, E. B. Warner, Charles S. Ward, John W. Warner, Robert Watts, J. G. Wallach, J. A. Walther, F. D. Weisse, W. H. Welch, H. G. Wetmore, O. P. Wells, J. Wiener, William T. White, Octavius A. White, Francis V. White, J. Blake

White, Charles S. Wood, J. W. Wright, Charles Wright, Leroy M. Yale, William Young.

In accordance with a call signed by Alfred C. Post, C. R. Agnew, Fordyce Barker, W. H. Draper, F. N. Otis, H. B. Sands, S. O. Vanderpoel, Robert F. Weir, A. Jacobi, A. E. M. Purdy, Thos. Addis Emmet, and Alfred L. Loomis, a large meeting was held at the house of Dr. A. Jacobi, on Friday evening, the 6th inst., at which many representative men from various parts of the State were present, Dr. Alfred C. Post in the chair. A committee of fifteen was appointed to report a plan for the organization of an association to oppose the re-enactment of the code of ethics of the American Medical Association by the Medical Society of the State of New York.

The following-named gentlemen were appointed on the committee, with power to fill vacancies, and to add to their number: W. W. Potter, of Buffalo; J. D. Spencer, of Watertown; W. C. Wey, of Elmira; B. F. Sherman, of Ogdensburg; W. H. Bailey, of Albany; W. S. Ely, of Rochester; Edwin Hutchinson, of Utica; H. B. Sands, J. L. Little, A. L. Loomis, F. Barker, A. H. Smith, and R. F. Weir, of New York; J. S. Prout and L. S. Pilcher, of Brooklyn. To these were added *ex officio* the President of the meeting, Dr. A. C. Post, and the Secretary, Dr. F. R. Sturgis.

AN APPEAL FOR THE OLD CODE.—We have been requested to publish the following:

To the Members of the Regular Medical Profession in the State of New York.

GENTLEMEN: Representing a large number of physicians associated to uphold the National Code of Medical Ethics, we beg leave to ask you to consider the importance of the object.

The so-called new code recently adopted by the Medical Society of the State of New York sanctions fellowship by means of consultations with all practitioners who are "legally authorized to practice medicine." This sanction extends to practitioners who have adopted designations intended to distinguish them as belonging to sects apart from, and hostile to, the regular medical profession, and who are organized in order to lessen public respect for this profession and for its members. Will you not seriously consider the question whether, under these circumstances, affiliation by any act with sectarian or irregular practitioners is consistent with a due regard for the honor of the profession, or with a proper sense of self-respect?

The new code has dissevered all connection by representation, of the Medical Society of the State of New York and its auxiliary county medical societies, with the American Medical Association, and, also, with the State medical societies of the several States of the Union. At the last meeting of the American Medical Association (1882) the Judicial Council decided as follows: "Having carefully examined the Code of Ethics adopted by the New York State Medical Society at its annual meeting in February, 1882 (as furnished by the secretary of said society), the Judicial Council find in the said code provisions essentially different from, and in conflict with, the Code of Ethics of this association; and, therefore, in accordance with the provisions of the Ninth By-Law of the American Medical Association, they unanimously decide that said New York State Medical Society is not entitled to representation by delegates in this association. The following is the by-law referred to in the foregoing decision: "No State or local medical society, or other organized institution, shall be entitled to representation in this association that has not adopted the Code of Ethics, or that has intentionally violated or disregarded any article or clause of the same."

We submit for your consideration that the substitution of the new code for that adopted by the American Medical Association has inflicted upon the medical profession of this State a great injury and disgrace.

It is believed that the recent action of the New York State Medical Society in relation to the Code of Ethics is not sustained by the sentiments and judgment of the great majority of the medical profession in the State. But, even granting that they who are opposed to this action are in the minority, it must be admitted that the number is very large. The effect of the action of the State society, if persisted in, will be a division of the profession of the State into two parties. In view of the evils which can not but follow such a division, and the

many advantages of harmony, we appeal most earnestly to those who have been led to approve of the substitution of the new code for that of the national to reconsider the matter, and we solicit the active co-operation of all who are in favor of the national code, in concerted efforts to effect, as speedily as possible, a reversal of the action of the Medical Society of the State of New York at the annual meetings in 1882 and 1883.

Communications from societies and individuals who are in sympathy with associations for upholding the National Code of Medical Ethics, and resisting any modification of that code which does not emanate from the American Medical Association, may be addressed to JOHN H. HINTON, M. D., No. 41 West Thirty-Second Street, New York City.

ABRAM DuBOIS, M. D.	JOHN H. HINTON, M. D.
J. W. S. GOULEY, M. D.	SAMUEL S. PURPLE, M. D.
WM. T. LUSK, M. D.	AUSTIN FLINT, JR., M. D.
AUSTIN FLINT, M. D.	SAMUEL T. HUBBARD, M. D.
T. GAILLARD THOMAS, M. D.	

RESIGNATION OF PROFESSOR DETMOLD.—At the close of a recent clinic of his regular Wednesday course at the College of Physicians and Surgeons, Professor William Detmold announced to the class that he had now relinquished his position at the college. He is reported to have used these words: "When in my younger days I began the practice of medicine, in Northern Germany, the fee allowed us by law for a visit was eighteen cents. Many were unable to pay so much. On my entering upon practice in New York, now over forty years since, I was called upon by many poor persons for treatment—persons who were unable to pay. I allotted a certain hour in each week for their special treatment. The number of such patients became very great. Students from every quarter of the city visited my office at these private clinics. For five years I continued in this way, at the end of which time a committee from this college waited upon me and requested me to transfer my clinic to this school, to which proposition I assented. That was the origin of this clinic, which has now been held for so many years. Now I am going to quit."

The clinic will be continued by Dr. Robert F. Weir.

THE DISLIKE OF DOCTORS.—Lady Florence Dixie assigns as a reason for her refusal to send for a medical man to see her after the recent attack made upon her, "I dislike doctors!" It would have been, in many ways, wise to call in the assistance of a trusted practitioner after such injuries as her ladyship is alleged to have received. We are not, however, interested in that matter so much as in the fact that there is such a feeling as "dislike of doctors." In part, doubtless, this feeling may arise from the recognition that "doctors" stand very much in the same relation to the body and mind as the minister of religion occupies toward the conscience. A medical man lifts up the veil and sees the psycho-physical being behind it. Probably in a certain proportion of instances the sense of being known is not pleasant. The feeling that a fellow-mortal possesses a deep insight into the actual condition of the organism, and is able to form a clear and approximately full and accurate estimate of the character, may, in some instances, be disquieting, while in others it engenders that sort of self-consciousness on the part of the patient which is experienced by devout penitents in the presence of their confessors, a feeling of mingled trust and anxiety, of satisfaction and regret. We can not believe that any other form of "dislike of doctors" than that many-phased feeling to which we have alluded can prevail. The medical adviser is, or ought to be, the best known and the most sincerely trusted of all the friends of his patient. His friendship should be even more thoroughly a sentiment of the inner life than any other. It is in this light the lay public should view their family doctors, and in this esteem the practitioner should aim to be held.—*Lancet*.

SEWER GAS IN PHILADELPHIA.—At a meeting of citizens, held last week in Philadelphia, to consider measures for the more effectual prevention of the injurious effects of sewer gas, the inactivity of the Board of Health was commented on, and the following gentlemen were appointed a committee to prepare a plan of action: Mr. Jonas Langfelt, Dr. W. B. Atkinson, Dr. Benjamin Lee, Mr. David Evans, Mr. L. O.

Howell, Jr., Mr. O. B. Evans, Dr. W. R. D. Blackwood, and Dr. C. C., Vanderbeck.

THE LATE SURGEON-GENERAL BARNES.—Not only among the profession in America, but in every country which recognizes the splendid services rendered to military medicine by the medical corps of our army during the past twenty years or more—services with which General Barnes is everywhere known to have been conspicuously associated for the greater portion of that period—the news of his death will fall as a blow, tempered only by the reflection that his active career had already drawn to a close on the addition of his name to the retired list, and by the trust, for which there is such ample foundation, that the management of the Surgeon-General's office is still in most competent hands.

Brigadier-General Joseph K. Barnes died in Washington on the 5th inst., of Bright's disease, in the sixty-sixth year of his age, having been over forty years in the army. He was born in Philadelphia, July 21, 1817. In 1838 he received the degree of doctor in medicine from the Medical Department of the University of Pennsylvania. After serving for several months in the Blockley Hospital, as a member of the house staff and in the out-patient department, he joined the medical corps of the army, receiving his appointment as Assistant Surgeon June 15, 1840. Having served at the Military Academy, in the Florida War, in the Mexican War, and again at West Point, he was appointed Surgeon August 29, 1856. At the outbreak of the late Civil War he was recalled to Washington from a post on the Pacific coast, and was made Medical Inspector with the rank of Lieutenant-Colonel February 9, 1863. On the 10th of August of the same year he was made Inspector-General with the rank of Colonel. The following year, on August 22d, he was appointed Surgeon-General with the rank of Brigadier-General. In 1865, at the close of the war, he was breveted Major-General, and last year he was retired in compliance with the general law.

In a general order, Adjutant-General Drum says of General Barnes: "He was eminent, skillful, and successful in his profession as surgeon and physician, and distinguished for great administrative ability as the head of the medical department. He inaugurated the 'Medical History of the War,' he founded the Medical Museum, and he brought the medical department to the highest state of efficiency. During the troublous times of the late war he earned the unbounded confidence of the Secretary of War, Mr. Stanton, and held it unshaken to the last. At the time of the assassination of President Lincoln and the attempted assassination of Secretary Seward, he attended at the deathbed of the one, and ministered with untiring energy and skill to the successful restoration of the other. So, during the long illness of President Garfield, he was one of the distinguished surgeons of the land who for days and nights served with devoted duty in the sick chamber of the dying President. During these long, protracted hours of anxiety and care his own health gave way, and from that moment to the time of his death he was an invalid. His career was one of honor to himself and of great service to his country."

DEATH OF PROFESSOR VON BRUNS.—This distinguished German surgeon, Director of the Department of Clinical Surgery at the University of Tübingen, has recently died at that town. He was a native of Brunswick, where he was born in 1812. He is chiefly known to the profession for the prominent part he has played in connection with the surgery of diseases of the larynx and the use of the laryngoscope. He contributed to medical literature a text-book on surgery, several papers and pamphlets on nasal polypus, and a valuable work on laryngoscopy, embellished by an atlas. His health had been failing for some time before his death, ever since an attack of apoplexy in the autumn of 1881, which led to his retirement from the professorship of surgery in the University.—*British Medical Journal*.

DEATH OF PROFESSOR ROSSO.—Professor Giuseppe Rosso, of the University of Genoa, died recently in that city. He had held the position of Professor of Surgery since 1851.

DEATH OF M. LASÈGUE.—Professor Charles Ernest Lasègue, physician to the Paris hospitals, and for the past ten years one of the editors of the "Archives générales de médecine," to which journal he

contributed many notable articles, died on the 20th of March, in his sixty-seventh year.

THE SKIN AND CANCER HOSPITAL.—It is announced that an entertainment will be given at Delmonico's on the afternoon and evening of the 24th inst., in aid of the new Skin and Cancer Hospital. It is said that the entertainment, termed a "kirmess," is to present some features of novelty, being in imitation of the old Dutch spring-tide festivals. The affair will be under the direction of the Ladies' Auxiliary Board of the hospital, comprising Mrs. John A. Lowrey, Mrs. H. A. V. Post, Mrs. E. C. Hall, Mrs. L. D. Bulkley, Mrs. B. H. Van Auken, Mrs. F. T. Woodbury, Mrs. W. C. Dewey, Mrs. D. T. Worden, Mrs. G. H. Fox, Mrs. Richard Irvin, Jr., Mrs. James B. Hunter, Mrs. Julius Crafft, Mrs. J. C. O'Connor, Mrs. Julius Catlin, Jr., Miss Mary L. Walker, Miss Olivia Stokes, Mrs. John D. Prince, Mrs. D. M. Porter, Mrs. W. L. Schermerhorn, and Mrs. R. H. Lounsbury.

WINTER CHOLERA IN NEW ENGLAND.—In a recent report of the Connecticut State Board of Health, prepared by Dr. C. W. Chamberlain, of Hartford, to whom we are indebted for an advance proof, we find the following: "There has been a peculiar type of disease in the State, which, as far as I can learn, appeared for the first time in New England this winter. I refer to what is called winter cholera. It was prevalent in Providence, R. I., and followed shortly after in Waterbury. Last year there were accounts of it in certain western cities. It appears in an epidemic form. No local cause has yet been found to be even usually associated with it. The disease is wrongly called cholera, for it does not produce death directly, and very rarely, if ever, indirectly. The symptoms are profuse watery discharges which evidently come from the blood, severe cramps, a pinched, sunken countenance—that is, the eyes appear sunken. After it is well established there is a cold stage, the temperature falling to 97 degrees, and cases are reported as low as 96 degrees. . . . The average duration is four days. The symptoms somewhat resemble those of cholera, hence the name. Thus far cities only have been attacked. I have learned of no genuine cases originating in the country. In most places the cases have been mainly among the prosperous, well-to-do citizens. In only one epidemic have I learned that a cause was assigned that was at all probable. There the poor living in tenement houses only were seized, and suetine, or rather lard butter, which was poorly prepared, was charged as the cause, but this appears hardly probable, as no such association has been since found to exist. It is a peculiar disease, but easily controlled by treatment. A few cases similar to the winter cholera are reported from Cheshire."

THE EDINBURGH ROYAL INFIRMARY.—The "Medical Times and Gazette" states that Dr. P. MacBride, Surgeon to the Edinburgh Ear Dispensary, and Lecturer on Diseases of the Ear in the Edinburgh School of Medicine, has been appointed to the post of Aurist and Laryngologist to the Royal Infirmary.

A NEW OBSTETRIC PHYSICIAN TO GUY'S HOSPITAL, LONDON.—The "Medical Times and Gazette" understands that the vacancy caused by the resignation of Dr. Braxton Hicks, Obstetric Physician to Guy's Hospital, has been filled by the appointment of Dr. Galabin, who is to be succeeded as Assistant Obstetric Physician by Dr. Horrocks.

THE TEXAS STATE MEDICAL SOCIETY.—The annual meeting of the society will be held at Tyler, on the 24th inst.

THE CROTON WATER.—The people of New York have seldom had reason to complain of the quality of their drinking-water; the general conviction is that it is good, what there is of it. It is reassuring, however, to have this impression confirmed by chemical examination, and to be able to record, on the authority of Professor Leeds, of the Stevens Institute, that the nitrate-of-silver actinic test produces comparatively little coloration of the Croton water, decidedly less than of some of the rural streams near New York.

JEFFERSON MEDICAL COLLEGE ALUMNI.—According to the "Medical News," the following-named gentlemen were recently elected officers of the Alumni Association of the Jefferson Medical College, of Philadelphia: President, Dr. Samuel D. Gross; Vice-Presidents, Dr. Addinell

Hewson, Dr. R. J. Lewis, Dr. Ellwood Wilson, and Dr. W. W. Keen; Recording Secretary, Dr. Thomas H. Andrews; Corresponding Secretary, Dr. R. J. Dunglison; Treasurer, Dr. Nathan Hatfield.

ARMY INTELLIGENCE.—*Official List of Changes of Stations and Duties of Officers of the Medical Department, United States Army, from March 31, 1883, to April 7, 1883.*—HAMMOND, JOHN F., Colonel and Surgeon. Granted leave of absence for six months on surgeon's certificate of disability, with permission to go beyond sea. Par. 6, S. O. 75, A. G. O., April 2, 1883. — HAMMOND, JOHN F., Colonel and Surgeon. To be relieved from duty in the Department of the East, and to report by letter to the Surgeon-General, U. S. Army. Par. 7, S. O. 75, A. G. O., April 2, 1883.

NAVAL INTELLIGENCE.—Surgeon John H. Clark and Passed Assistant Surgeon P. A. Lovering have been ordered to the Lackawanna, of the Pacific squadron, taking passage from New York on the steam ship sailing April 20th. — Passed Assistant Surgeon Robert Whiting has been ordered to the receiving ship Wabash. — Surgeon Charles H. White and Passed Assistant Surgeon A. C. Heflinger have been detached from the Lackawanna, and ordered to return home on the reporting of their relief, and report their arrival. — Surgeon J. H. Kidder has been detached from the Albatross, and granted leave of absence for three months. — Passed Assistant Surgeon C. G. Herndon has been detached from the receiving ship Wabash, and ordered to the Fish Commission steamer Wabash. — Assistant Surgeon Joaquin D. Castillo has resigned, to take effect October 3, 1883, and has been granted leave until that date. — Medical Director J. J. Turner has been elected Second Vice-President of the Navy Mutual Aid Association, and Medical Inspector S. Kindleberger and Passed Assistant Surgeon P. M. Rixey have been elected resident directors. — Medical Director F. M. Gunnell and Medical Inspector David Kindleberger are on the Retiring Board now in session at Washington. — For the foregoing items we are indebted to the "Army and Navy Journal."

MARINE HOSPITAL SERVICE.—*Official List of Changes of Stations and Duties of Medical Officers of the United States Marine-Hospital Service, January 1 to March 31, 1883.*—BAILLACHE, P. H., Surgeon. Detailed as member of board for the examination of officers of the Revenue Marine Service, March 27, 1883. — MURRAY, R. D., Surgeon. To proceed to Vicksburg, Miss., as inspector, March 24, 1883. — PURVIANCE, GEORGE, Surgeon. To proceed to Cleveland, Ohio, to investigate management of hospital, January 22, 1883. Granted leave of absence for seven days, February 8, 1883. — AUSTIN, H. W., Surgeon. To proceed to Gallipolis, Ohio, as inspector, January 9, 1883. — FISHER, J. C., Passed Assistant Surgeon. Detailed as member of board for the examination of officers of the Revenue Marine Service, March 27, 1883. — CARTER, H. R., Passed Assistant Surgeon. To proceed to New Orleans, La., for temporary duty. Thence to San Francisco, Cal., for duty, February 7, 1883. — PORTER, F. D., Passed Assistant Surgeon. Granted leave of absence for thirty days, February 10, 1883. — GUITERAS, JOHN, Assistant Surgeon. Granted leave of absence for thirty days, January 19, 1883. — WHEELER, W. A., Assistant Surgeon. To proceed to Chicago, Ill., for duty, January 27, 1883. — ARMSTRONG, S. T., Assistant Surgeon. To proceed to Key West, Fla., for temporary duty, February 1, 1883. — BENNETT, P. H., Assistant Surgeon. To proceed to Charleston, S. C., for temporary duty, February 19, 1883. *Resignation.*—PORTER, F. D., Passed Assistant Surgeon. Resignation accepted, to take effect March 31, 1883.

SOCIETY MEETINGS FOR THE COMING WEEK.—*Tuesday, April 17th:* Academy of Medicine (Section in Practice); Obstetrical Society (private); Medical Society of the County of Kings (Brooklyn). *Wednesday, April 18th:* Comitia Minora of the Medical Society of the County of New York; New Jersey Academy of Medicine (Newark). *Thursday, April 19th:* New York Academy of Medicine.

ERRATUM.—In Dr. Piffard's article, in this number of the journal, p. 401, second column, twenty-first line, for "Dr. J. G. Adams" read Dr. White.

Original Communications.

THE NECESSITY FOR A CODE OF MEDICAL ETHICS.

BY D. B. ST. JOHN ROOSA, M. D.

THE letters of Dr. Flint and Dr. Barker which have lately appeared in the "New York Medical Journal," the series of articles by Dr. Flint, and the paper by Dr. Hopkins, as well as the editorial comments upon them, seem to invite those who have mentally formulated their views upon the subject of codes of ethics to publicly express them. I am personally very glad of the opportunity to speak upon a subject in regard to which my views, in certain circles, seem to have been misunderstood, in a place free from the excitements of a meeting of the profession, where votes are taken and counted. To those who are not delegates to or permanent members of the New York State Medical Society, a few words in the way of history are necessary, in order that the resolutions offered in 1882, and which by Dr. Elsborg are considered as worthy to be entitled the "Gentleman's Code," may be fully understood. Those resolutions read as follows:

"The Medical Society of the State of New York, in view of the apparent sentiment of the profession connected with it, hereby adopt the following declaration to take the place of the formal code of ethics, which has up to this time been the standard of the profession of the State:

"With no idea of lowering in any manner the standard of right and honor in the relation of physician to the public and to each other, but, on the contrary, in the belief that a larger amount of discretion and liberty in individual action, and the abolition of detailed and specific rules, will elevate the ethics of the profession, the medical profession of the State of New York, as here represented, hereby resolve and declare that the only ethical offenses for which they claim and promise to exercise the right of discipline are those comprehended under the commission of acts unworthy a physician and a gentleman.

"Resolved, Also, that we enjoin the county societies and other organizations in affiliation with us, that they strictly enforce the requirements of this code."

There was no caucussing of any kind, either with the members of the Committee on Ethics, whose duty it was to present a revised code, or with other members of the society, when this was introduced, or previous to its introduction. It was a great surprise to Dr. Wey, Dr. Van der Poel, Dr. Agnew, and Dr. Piffard when I presented it. Dr. W. S. Ely, the last named on the committee, knew of it, and he almost by accident. He had read it carefully. I have reason to believe that the committee on the new code would have presented their report in a very different way had they anticipated that any considerable number of the State society, much less a majority of those present, were anxious to go further than they in simplifying the code. As it was, their report was presented with the idea that it would be criticised line by line, and section by section. But, when the foregoing resolution was offered at a large meeting of the society, assembled with a full knowledge that a revised code was to be presented—a meeting composed of delegates

and members from all parts of the State—the debate took a different turn from what was thought possible by the committee, and turned, not on the necessity for a revision of the code, but on the point as to whether a detailed code was at all necessary. In that debate, extemporaneous and vigorous, there were but two speakers who made any argument for the old code, and, on an analysis of the vote, it will be found that not more than twelve or fourteen of the seventy-eight votes cast were in favor of it.

When it was found that my resolutions had failed from want of the constitutional two-thirds vote, after some conference, the friends of the declaratory resolution and of the new code united in voting for the report of the committee, and thus secured its passage. The hour was so late that there was no time for any discussion of the committee's report, or, it is confidently believed by many, it would have undergone revision in many respects. After the meeting was over and discussion became general by the press of the whole country, especially and only on the consultation clause of the new code, it was evident that the old code would again be incorporated in the by-laws of the society unless there was a thorough union of all those opposed to it. Such a result would have been equally obnoxious to those who supported the committee's report, and to the friends of the declaratory resolutions. A union therefore occurred, and the contest in Albany became virtually narrowed down to this: "Shall the members of the New York State Medical Society be allowed to continue in the freedom of consultations given them by the new code, or shall this be taken away from them because the American Medical Association refuses its assent to such a liberty?" The two thirds who voted for the new code were told by one speaker, in the debate that preceded its passage, that they must inevitably cut themselves off from this association by their action; but they were not awed by the statement. It is my belief that each member of the profession has an inherent right to give his professional advice whenever he may choose, and that he may not be compelled to give it unless he does choose to. I do not think, moreover, that the American Medical Association will formally admit this right within a reasonable future, and I therefore, with many others, prefer to support a code that accords this right rather than one that expressly denies it, even if by such a support we seem to yield the principle we hold dear, that a profession needs no code other than the common law of the land. But, now that the field is clear of side issues for a time, the friends of the declaratory resolutions are very glad of an opportunity, free from an entangling alliance with the friends of the new code, pure and simple, to express their views on the question involved. We regard the old code, except as to the consultation clause, as chiefly a hand-book of etiquette. Proof that this is a correct view may be found by reference to the sections which state that the mind of the physician "ought to be imbued with the greatness of his mission." "They should study in their department so to unite tenderness with firmness, condescension with authority, as to inspire the minds of their patients with gratitude, respect, and confidence."

"A patient should never weary his physician with a tedious detail of events and matters not appertaining to his disease." Now, all these things are true enough, but they are matters pertaining to manners and not to morals. If they and scores of others like them are not taught by parents teachers, by the ordinary intercourse of society, they can never be learned at all. Polite society has long since discarded books of etiquette; not that etiquette is not important and even necessary, but we do not believe that it can be taught by hand-books. Only the vulgar and ignorant resort to them.

One of the funniest scenes in "She Stoops to Conquer" is the attempt of Squire Harcastle to drill his motley servants, headed by Diggory, into well-trained waiters, in the few hours before the arrival of London guests. An attempt to make cultivated gentlemen by the proper rules of a code of ethics will be a failure as great as that of the Squire's over Diggory's hands and knees. There is not a line of these directions regarding the etiquette of medical men that is not self-evident to any properly educated medical practitioner as a proper course of conduct. As to the value of a code for our patients, it is probable that well-bred people will always treat us as well as we deserve, and ill-bred one will always continue to annoy us, in spite of a code which tells them that they ought not to. It seems, to those of us who consider the greater part of the code as a mere hands book of etiquette, that Dr. Flint, in his commentaries now being published in your journal, is only undertaking a work of supererogation in discussing the self-evident truths of many parts of the code. What shall we think of a man who, having entered the medical profession, needs to have a printed formula to tell him that "consultations should be promoted in difficult cases, as they give rise to confidence, energy, and more enlarged views of practice"; or that "the opportunity, which a physician not unfrequently enjoys, of promoting and strengthening the good resolutions of his patients suffering under the consequences of vicious conduct, ought never to be neglected"? A man who has not the wit to get aid from consultations when he is in doubt about a case under his care, or the moral character to counsel a patient suffering the effects of a bad life, will hardly acquire these things from a written code. Even Dr. Flint, with all his admiration for the code, is constrained to admit that it is indelicate for a member of the profession to dilate largely on the "obligations of patients to their physicians"; and he dismisses the pedantic article devoted to this subject in the code with very little remark. Indeed, the strongest mental digestion would quail at this morsel. The idea that physicians should gravely enjoin their patients to "prefer a physician whose habits of life are regular, and who is not devoted to company, pleasure," etc., is one that would not enter the mind of the average man, or that "a physician should never weary his patient with a tedious detail of events and matters not appertaining to his disease." And do we all agree that "justice and common courtesy require" that a patient should declare his reasons for dismissing his physician? I am not so sure that a physician is anxious to know the reason for his dismissal. He may at least assume that he is not wanted, if he be dis-

missed, without waiting for an elaborate note in which his want of qualifications are set forth. It seems, to those of us who believe that the profession requires no formal code beyond the declaration that a physician must behave like a gentleman, that a hint that our services are no longer required will be quite sufficient when dismissed from a case. We consider such paragraphs, of which I have given specimens, as *peurile*. Dr. Noyes said, in his speech on the code in 1882, that he well remembered the feeling of surprise that came over him when he first read the Code of Medical Ethics. "It seemed to be saying things that were both humiliating and unnecessary." Dr. Flint's articles will, I think, reawaken these feelings in many minds. We all agree that "it is derogatory to the dignity of the profession to resort to public advertisements or hand-bills, inviting the attention of individuals affected with particular diseases, . . . to boast of cures and remedies," and so forth, but ours is the only profession that does not think it derogatory to its dignity to make laws on such matters. It is the only profession in which the members are not content to leave such plain matters of taste to the good sense of each of its members. There is a Coventry, even in our profession, which furnishes a complete exile for men who would shock good taste by such violations as are implied in this paragraph. But the friends of the old code are like the advocates of sumptuary laws: they believe that all evils may be corrected by rules. I forbear, however, to discuss the code further in detail, but I pass on to the clause which is really at the bottom of all the excitement that has been caused by the action of the Medical Society of the State of New York. The consultation clause is almost the only essential one which the new code abrogates, and this is the one for which our brethren are now struggling. At this point the division between the State of New York and the American Medical Association is marked. Here the new-code supporters and those who advocate a simple declaration, or "a gentleman's code," are agreed. Yet we who argue for a simple declaration would allow even this to be unwritten. Higher than the law which allows a physician to consult with any other "legally qualified practitioner," to our mind, is the law that allows each man in the possession of knowledge to give it freely whenever it is honestly asked. We can not see how discussion is possible over such a self-evident right. All the words about "affiliating with quacks," "degrading the profession," "mercenary motives," which have been so freely used in this debate, can not cover up the main issue. Can a man give his advice whenever in his opinion it will do good? Has he a right to give his professional services whenever they are asked? The issue is not, Shall he be compelled to give them when he is sure they will be as pearls before swine; but, Shall he be cast out from the profession because he honestly gives his advice whenever in his judgment it will do good, even if to homœopaths and eclectics. The men who fear that this liberty will degrade the profession of medicine, and cause its members to fall away into the methods of charlatans, must, indeed, have a low estimate of the intrinsic qualities of medical men that have been trained in the regular schools and societies of America. If freedom in consultations will

cause us to degenerate from the position we have won, if individual freedom to do as we think best in such a matter will degrade us, then let us meet our fate and let a better race of men take our places.

There is no justice in the comparison made by the advocates of codes between laws against crime and rules of etiquette. Even in matters of civil law men are generally agreed that we have too many laws, but those of us who declare a specific code for the medical profession unnecessary also know that the civil law is ample to prevent crime so far as law will do so. We are not willing, however, to admit that advertising skill, holding patent rights of surgical instruments, consultations with men who have not the correct views of therapeutics, are crimes, although some of these acts may be breaches of good taste. There is no justice in any such comparisons.

It certainly is not in good taste for a judge to sit in court with his feet higher than his head, or to hold its sessions while he is in his shirt-sleeves, but these breaches of manners, which sometimes occur in our country, have not yet induced the legal profession to draw up a code of etiquette. The arguments against the old code apply with equal effect to the new, except that very many of the puerilities of the old code are stricken out, so that the code is much shorter. The first section opens with the familiar phrase, "It is derogatory to the dignity," etc., and proceeds to tell us that we shall not violate good taste and resort to public advertisements. It has, however, a remarkable phrase not to be found in the old code. This is the one which says that it is derogatory to the dignity of the profession to allow our opinions on medical and surgical questions to appear in the newspapers. Now, this may be true or it may not. In times of epidemics even the publication of a formula for the relief of cholera morbus would certainly be of value to the profession, as it has been in the past, even if it contain an opinion on a medical subject. While it is, no doubt, a good general rule that the newspaper is not the place for medical and surgical opinions, there are many times when this avenue to information becomes just the means of humanely serving the public. This, as well as the subsequent clause, as regards giving certificates, could safely be left to the good judgment of the profession. After the famous consultation clause of the new code, there are some few rules in regard to the etiquette of consultations that are well enough, but they are open to the same objections that are made to those of the old code. They are unnecessary. The third and final section of the new code is devoted to the relations of physicians to each other. In the first place, the very proper statement is made that "all practitioners of medicine, their wives, and their children while under paternal care, are entitled to the gratuitous services of any one or more of the faculty residing near them." This will hardly be disputed, I think, nor will the other clauses in regard to the attendance by a practitioner on a sick brother's patients during his illness. The matter of carrying on medical controversies in newspapers and pamphlets is then discussed, and the New York State code closes.

It is more remarkable, except in the matter of consultations, and interviews with reporters, for what it does not say than for what it does. It is a great improvement upon

the prolix, verbose, and puerile details of the old code, and it will therefore be earnestly supported by many members of the profession, who desire either a simple declaration or no words at all, until the day comes when, as in many older lands, the profession in this country does its work without a book of etiquette, and without any restrictions to prevent an individual member from giving his advice wherever it may do good.

The argument that we should wait for the American Medical Association before we attempted any change in the code of our State would be more weighty with many of us if we had a greater respect for the methods and organization of that association. The chartered representative organization of our State is not to be compared to such a loosely organized body as the so-called American Medical Association. Permanent members of the New York State society are chosen in limited number only, and then from those who have served as delegates for three years. A man who has once been a delegate to the American association becomes a permanent member by subsequent attendance and payment of five dollars per annum. It is in no sense a representative body. It is one that is very easily packed, an impossibility with such a body as that of our State. The meetings of the American association are more or less well attended, according to the city in which it may happen to meet. In this wide country it is practically impossible with such an organization as that of this association to secure a fairly representative assemblage in any city, east or west, north or south. As an association in which the profession from all parts of the country may meet convivially, or socially, or scientifically, it may have a certain value. But, as a body to legislate for the profession of the different States, it certainly has been, and will continue to be, a failure. Certainly the profession of the leading State, as regards medical position, is not prepared to give up its own chartered and time-honored legislative powers to a medical mass-meeting. If we must have a national code of ethics, let us have a proper national body to formulate it. Then, perhaps, the State of New York will yield the rights she now claims to possess, but she is as yet unawed by the clamor of those who are open to the suspicion of being jealous of her fame.

THE QUESTION OF TREPHINING IN INJURIES OF THE HEAD.*

By H. B. SANDS, M. D.

THE operation of trephining the skull having been performed in my service at the Roosevelt Hospital in seven cases during the past year, I have thought that a brief account of these cases might be profitable, by eliciting from the members of our society their experience in the operation, and more especially their views in regard to the indications for its performance. For ages past, no surgical procedure has been the subject of keener controversy; and the diversity of opinion which still prevails concerning it suffices to prove that the question of its value is yet unsettled, and that it is one of inherent difficulty and obscurity. Fur-

* Read before the New York Surgical Society, March 27, 1883.

ther discussion, therefore, appears to be desirable; particularly when we consider the fact that a few American surgeons have lately endeavored to extend the sphere of the operation by reviving the obsolete practice of trephining in cases of simple fracture attended with displacement or depression, even in the absence of head symptoms, and merely as a preventive measure.

Before proceeding to relate briefly the cases above referred to, it may be proper to state that I shall employ the term trephining in its wider sense, which includes under this designation the several methods by which fragments of bone are elevated or removed, whether by means of a trephine, Hey's saw, chisel, elevator, or gouge-forceps.

Out of the seven cases, the operation was performed once for simple fracture with depression, four times for compound fracture with depression, and twice for epileptic and paralytic affections following an injury.

CASE I.—On August 23, 1882, a boy, aged thirteen, was brought to the hospital in a semi-comatose state, caused by a fall from a horse just before his admission. On examination, a scalp wound was found over the left, and a hæmatoma over the right parietal bone, but no fracture was discovered. The left side of the body was partially paralyzed.

Treatment.—Iodoform dressing to scalp wound; ice-cap to head.

August 25th.—Patient still comatose. Dr. Halsted, the assistant surgeon, suspecting fracture, made a crucial incision over the right parietal bone, and discovered an extensive depressed fracture of the right temporal and of both parietal bones, running upward beyond the vertex. A large piece of the temporal, and several fragments of the parietal bone were elevated or removed, and, on following up the line of fracture to the vertex, a rent was found in the dura, through which a considerable amount of brain substance had escaped. During the operation, the superior longitudinal sinus was wounded. Bleeding was arrested by pressure, and the external wound was partially closed by suture. Consciousness did not return, and death occurred two hours after the operation.

Evidently, in this case, the operation was useless; and, undoubtedly, it would not have been undertaken if the extent of the injury had been known beforehand. The case may serve, however, to enable us to discuss the general question as to the expediency of trephining in simple depressed or comminuted fracture, accompanied or not by symptoms of compression or other cerebral injury. It is hardly necessary to remark that a fracture of the skull derives its chief importance from the concomitant or subsequent injury which is sustained by the intracranial contents; and just as no prudent surgeon would dream of converting a simple fracture of the leg into a compound one for the sake of obtaining an accurate adjustment of the fragments, so the plea for preventive trephining in cases of simple depressed or comminuted fracture of the cranium, without head symptoms, is based upon the supposition that, by operating, the danger of subsequent cerebral mischief will be averted. I can not admit the force of this argument, which seems to me to undervalue, on the one hand, the resources of nature, and, on the other hand, the risks inseparable from

surgical interference. Every surgeon present has, doubtless, met with examples of simple depressed fracture, in which no alarming head-symptoms were present, and in which permanent recovery took place without any active treatment. Surgical literature abounds in such cases. Textor cites twelve instances of depressed fracture verified by post-mortem examination, in seven of which the depression was complete, involving both tables, and in all of which recovery had taken place without any impairment of the cerebral functions. Similar observations have been recorded by Erichsen, Nunn, Bruns, and many other trustworthy writers.

In cases of simple comminuted fracture, without marked depression, but with considerable displacement of the fragments, early trephining is sometimes advocated, on the ground that, unless the loose pieces of bone are removed by operation, they will probably become necrosed, and thereby set up fatal intracranial inflammation. But neither of these statements is confirmed by experience. We can rarely feel certain that the comminuted portions of bone, even though freely movable, are completely detached from their vital connections; for they may still be adherent to the pericranium. But, admitting their isolation to be complete, it is conceivable that their vitality might yet be preserved by newly formed attachments to the surrounding parts. In support of this view, I may cite a case lately published by Professor MacEwan, of Glasgow, who, having applied the trephine in a compound depressed fracture of the skull, took a piece of the inner table which had been completely detached, and laid it in the trephine-aperture. The transplanted bone caused no irritation, and the wound healed without any signs of inflammation. Nevertheless, it can not be denied that necrosis may occur under the circumstances above mentioned, although it is comparatively rare when the fracture is simple. It must also be granted that, when occurring, the suppurative action excited by the presence of the dead bone may extend to the membranes of the brain, causing fatal complications. But there are so many recorded examples of necrosis following gunshot injuries of the head, in which very large pieces of necrosed bone have been removed without the occurrence of cerebral symptoms, that preventive trephining can hardly be defended unless it can be shown to be an operation free from serious risk.

The performance of the operation, in cases of simple depressed fracture, without head symptoms, with the object of removing sharp fragments of the inner table which it is assumed may have penetrated the membranes of the brain, or perhaps the brain itself, seems to me also quite unnecessary. It is true that in severe cases of simple fracture the internal table is often very extensively injured; and Bergmann has aptly remarked that a mere inspection of museum specimens might lead one to infer that simple fractures were graver injuries than those which are compound. But clinical experience proves that these extensive osseous lesions are often recovered from without surgical interference.

On the whole, then, it would appear that the apprehensions felt by those who advocate preventive trephining in the circumstances mentioned are scarcely justified by observation. And, if this fact is admitted, the propriety of performing the operation of trephining must be considered as, at

least, very doubtful. If our means of diagnosis were more exact, and if we were able to predict what cases would turn out badly if left to nature, active interference would often be an obvious duty; but, in the absence of such knowledge, it seems unjustifiable to subject the patient to an operation which must convert a simple into a compound fracture, with its attendant dangers of suppuration in close proximity to vital parts. Although a firm believer in the excellence of antiseptic surgery, I regard the unbroken skin as a surer protection to the deeper parts than the best surgical dressing that has yet been invented; and when we remember that, occasionally, even in careful hands, accidents occur in performing the operation, such as wounding the *dura mater*, or perhaps the brain, or one of the larger sinuses, we have still further reason to follow the conservative method of treatment which is sanctioned by the teaching and experience of the great majority of living surgeons.

The course which should be pursued in cases of simple fracture of the cranial vault, accompanied by head symptoms, is by no means easy to decide. The unknown quantity vaguely expressed by the term "head symptoms" often leaves us quite in the dark regarding the seat, nature, and extent of the traumatic lesions, so that we can not foretell whether the operation of trephining will prove beneficial, useless, or injurious. In endeavoring, however, to arrive at a definite conclusion on this point, there are certain well-known pathological and clinical facts which may sometimes guide us. Compression of the brain resulting alone from a fragment of depressed bone is rarely of long duration. Often, as has been remarked, considerable depression exists without any interference with the cerebral functions; and even when the depressed bone causes symptoms of compression, these frequently disappear gradually as the cerebro-spinal fluid becomes displaced or absorbed, and the circulation in the brain is restored to its natural condition. Hence, even when we trephine successfully in cases of depression, we can not always be sure that the favorable result is due to our intervention. This point is happily stated by Dieffenbach, who records his experience in the following words: "A boy fell from the first story down upon a stone pavement, and received a fracture of the right parietal bone, of which a piece three inches in circumference was depressed several lines in depth. He lay comatose. I trephined him; he recovered; and I believed that I had saved his life by the operation. A year later he fell from the same place, and struck again upon the stone pavement, this time breaking the left parietal bone, just as he had before broken the right one. He recovered without trephining; again I believed that I had saved his life; and I began to think that he had shown much endurance at the time when he survived the operation."

It has been clearly shown that in severe cases of simple depressed fracture, accompanied with marked and prolonged signs of compression of the brain, other lesions usually co-exist, such as contusion or laceration of the brain, or hæmorrhagic extravasation, which may take place between the *dura* and the skull, in the arachnoid cavity, in the substance of the brain, or on its surface, from the vessels of the *pia mater*. If we except those rare instances in which the

compression is due solely to an extravasation between the *dura* and the cranium, we shall have no reason to expect that benefit would result from the application of the trephine. So far as the brain substance is concerned, the damage it has sustained is beyond the reach of mechanical aid; its integrity, if restored, will be slowly regained, as in cases of ordinary apoplexy, by absorption of the extravasated blood. And the same process goes on in favorable cases when blood is effused upon the surface of the brain. We have probably all seen examples of coma lasting for days or for weeks after head injuries, but which yet ended in recovery, due, as we may fairly presume, to the gradual disappearance, by absorption, of the extravasated blood. When we consider how large a quantity of blood is often poured out within the cranium in cases of fracture, we can not avoid the inference that the compression which it exerts is far greater than ever occurs from any depression of bone that we should think of treating by operation. In such cases trephining would be useless, either in consequence of the depth of the extravasation or because, being widely diffused over the surface of the brain, the effused blood would not escape through the artificial opening made in the skull. Furthermore, the operation might in some cases prove injurious, by provoking meningitis. In other words, the very facts which have been urged as affording an indication for the employment of the trephine in cases of simple fracture may, in my judgment, be used as an argument against the propriety of the operation. I refer to the gravity of the injury, and the severity of the symptoms. Where the fracture is of great extent, and accompanied with severe contusion or laceration of the brain, or with copious intracranial hæmorrhage, it is extremely doubtful whether the trephine can ever be employed with advantage; while the operation must, by increasing the mechanical injury and by favoring the occurrence of suppuration, add not a little to the already existing danger which threatens the patient's life. Perhaps I do not fully appreciate the comparative safety which attends the performance of the operation according to modern antiseptic methods; but I believe that in this class of cases future experience will prove active interference to be of doubtful utility.

There are two conditions, however, either one of which, when present, renders imperative an immediate resort to the trephine. One of these is the case in which the fracture is of limited extent, and in which there is reason to think, from its situation or from the occurrence of monoplegia, monospasm, or hemiplegia, that a splinter from the inner table may have penetrated the motor tract of the cerebral cortex. But, as we have seen, the fractures which are attended with such displacement of fragments of the inner table are usually of small extent, and are almost invariably compound. The other case is the one in which compression of the brain is caused by an accumulation of blood between the *dura mater* and the cranium. Such an accumulation may result from a wound of one of the larger venous sinuses, but in a large majority of instances it depends on a wound or a laceration of the middle meningeal artery. The accident is most frequently accompanied by a compound fracture; but it may be met with in cases of simple frac-

ture, and occasionally when no fracture is present. When there exists a compound fracture, the blood usually escapes through the external wound, thus rendering the diagnosis easy; but, when the fracture is simple, or when the artery alone is injured, the extravasated blood separates the dura mater from the cranium, and may be poured out in sufficient quantity to cause fatal compression of the brain. The amount of blood thus extravasated may be as much as half a pint. When the brain has not sustained severe injury, and the symptoms of concussion are but slight, the signs of the arterial lesion may be quite characteristic. After a blow has been received, usually in the temporo-parietal region, the patient, although, perhaps, slightly stunned, soon regains consciousness, and exhibits no marked signs of cerebral injury. But, after the lapse of a few minutes, or possibly several hours, symptoms of compression appear, and soon become very marked, the patient often dying within twenty-four hours from the time of the accident. Hemiplegia sometimes occurs before insensibility is complete; and its detection is important, for the reason that a blow upon one side of the head has been known to cause a rupture of the artery on the opposite side. The accident affords a clear and positive indication for the application of the trephine; yet there are but few recorded cases of the operation. Adding one recent case to the list compiled by Bergmann, there are one hundred well-authenticated examples of hæmorrhage from the middle meningeal artery. Of these, seventeen ended in recovery, and in twelve out of this number the blood escaped through an external wound. Of the remaining five, one recovered without operation, the diagnosis being confirmed by autopsy when the patient died three years later of pneumonia. The other four recovered after operation, the blood being evacuated through the trephine opening. In one of those cases, that of Hueter, the bleeding artery was secured by a ligature.

The four cases of compound depressed fracture may be related in few words.

CASE II.—A girl, aged fourteen, entered the hospital February 14, 1882, having been kicked on the head by a horse shortly before admission. Compound depressed fracture of frontal bone, just above superciliary ridge. Depressed portion measured half an inch by two inches. Patient unconscious. Trephine applied on outer side of depression by Dr. Parmly, house surgeon, and depressed bone elevated and several loose fragments removed. Catgut drainage; salicylated cotton dressing; wound closed by sutures. Patient became conscious soon after operation, and had no head symptoms afterward. Temperature never rose above 100° F. Discharged, cured, February 28th, fourteen days after injury.

CASE III.—Male, aged twenty-three, entered hospital June 22, 1882. Fifteen minutes previously was kicked by a horse, the injury sustained being a compound fracture of left side of frontal bone, just above superciliary ridge; was able to walk into hospital, and showed no signs of concussion. Right pupil dilated. A portion of bone one inch by three quarters of an inch comminuted and depressed. Ether. By means of trephine, gouge-forceps, and elevator, Dr. Weed, house surgeon, removed depressed fragments

and smoothed off sharp edges of bone, leaving aperture five eighths by one inch and a quarter. Dura uninjured; catgut drainage; silk sutures; iodoform dressing. No bad symptoms. Wound healed, and patient discharged, cured, July 6th, fourteen days after accident.

CASE IV.—A man fell eight stories, and was brought to the hospital, comatose, October 3, 1882. Had compound fracture of the right femur, compound fracture of right parietal bone, and fracture of spine in upper dorsal region, the latter injury not being discovered until after death. Pieces of bone impinging on dura mater removed by Dr. Weed, house surgeon, leaving oval opening one inch and three quarters in length. Patient remained comatose, and died thirty-six hours after admission.

CASE V.—Man, aged fifty; admitted October 22, 1882. While under influence of liquor, fell upon a stove, striking the back of his head, and sustaining a compound depressed fracture in occipital region on left side, just above superior curved line. Depressed bone measured three quarters by one inch and a half. Much comminution of both tables, especially the inner. No head symptoms; no wound of dura. Operation by my assistant, Dr. King. Patient etherized, depressed fragments removed, and the edges of aperture made smooth with gouge-forceps. Catgut drainage; wound washed out, as in previous cases, with five-per-cent. solution of carbolic acid, and closed with silk sutures; iodoform dressing. Patient progressed favorably, and was discharged, cured, November 5, 1882, fourteen days after admission.

Of these four cases it may be observed that the third one was evidently hopeless when admitted, and that any operation under the circumstances was inexpedient. The remaining three are familiar examples of recovery after trephining in compound fractures of limited extent, accompanied with depression and comminution of the bone, but not attended with any signs of serious injury to the brain. I believe that in such cases trephining is plainly indicated, and that many lives, which would otherwise be lost, are saved by the operation, which, by elevating depressed fragments, by removing fragments that are loose or sharp, and by permitting thorough antiseptic irrigation of the wound, reduces to a minimum the risk of intracranial inflammation, so greatly to be dreaded in this class of cases. To insure success, however, the operation should be performed soon after the injury, and with strict antiseptic precautions. I recall an instance in which, many years ago, I unfortunately delayed the operation until the third day, in consequence of the entire absence of head symptoms. When these occurred, I trephined, but lost the patient, who, I believe, might have been saved by earlier interference. If trephining has not been performed soon after the accident, and the wound seems to be doing well, I should consider it objectionable to disturb it at a later period, unless an operation were indicated by the occurrence of decided symptoms pointing to intracranial mischief, as I have seen cases of recovery from compound depressed fracture in which the bone was not elevated. But I do not remember to have met with such an instance except in children, who, as is well known, bear head injuries much better than is the case with adults.

While believing that trephining is to be recommended in all cases of compound fracture in which the depression is marked, but of no great superficial extent, and in all cases of punctured fracture when there is reason to suspect that the internal table is extensively splintered or depressed, I am strongly opposed to active interference when the fracture is of great extent, and when the depression is not limited or abrupt. It is true that these cases are usually fatal; but I am sure that nothing can be gained by the extensive operative procedures that would be involved in any attempt to remedy the displacement. Aside from those cases in which the brain has suffered irreparable damage, I think that in future many successes will be obtained by careful antiseptic treatment of the wound, such as recommended by Lister in the management of compound fracture of the bones of the extremities. The most scrupulous cleansing of the wound, the arrest of hemorrhage, the removal of foreign bodies, loose fragments of bone, and of detached portions of brain matter, if present, followed by proper drainage and dressings, is, in my judgment, the only means which, with our present knowledge, promises any benefit in this nearly desperate class of injuries.

In the two cases that complete my list, trephining was performed at a period remote from the date of the accident.

CASE VI.—William G., aged twenty-six, entered the hospital June 26, 1882. Nine years ago was struck on the head by a piece of slate weighing one pound and a quarter. Became immediately unconscious, and remained in bed several weeks. When consciousness returned, left hemiplegia was observed; this remained nearly complete for seven months, after which it gradually diminished, and nearly disappeared. A few weeks after injury, began to suffer from epilepsy, and has ever since been liable to frequent attacks. Left hand somewhat weak; unable to contract index finger. Patient lively and talkative, but mind evidently impaired. On right side of head, near the parietal eminence, is a depression of bone, about one inch and a quarter in diameter. Its right edge is one inch and a half from median line, and its center just in front of the Rolandic line. Depth of depression at center greater than elsewhere, and estimated to be one quarter of an inch. Scalp over depression marked by a crucial scar, the point of crossing corresponding with its deepest part.

June 27th—Operation.—Bone exposed by a crucial incision, and trephine applied just behind margin of depression. Piece removed was 5 millimetres in thickness. By means of gouge-forceps, the depressed bone, as well as that adjacent to it, was removed, leaving a nearly circular aperture measuring $4\frac{1}{2} \times 5$ centimetres. The depressed bone was quite vascular, and was considerably thickened, being 12 millimetres in thickness at its central part. No adhesions between bone and dura; no morbid conditions discovered besides those already mentioned. Wound closed by silk sutures without drainage; iodoform dressing. Before and after operation patient took daily 90 grains of potassium bromide. Recovery took place without a bad symptom, the temperature never exceeding 100° F. The dressing was not changed until the end of a week, when complete union was found to have taken place externally. The scalp was con-

siderably elevated, however, by a fluid accumulation beneath it, which was probably either blood or serum, as it disappeared by absorption in the course of the following week, at the end of which time the patient left the hospital, in about the same condition, as regards want of mental and muscular power, as when he was admitted.*

This case was sent to me by my friend, Professor Sequin, who advised the operation as a last resort, medicine having failed to afford the desired relief. What permanent benefit will result from the removal of the depressed and thickened bone it remains to be seen; yet I anticipate little, if any. It seems far more rational to ascribe the patient's symptoms to textual alterations in the cerebral convolutions, resulting from the primary injury, than to assume that they were due to the slight diminution in the size of the cranial cavity, caused by the depressed and hypertrophied bone. Twenty years ago I assisted Professor Willard Parker in operating on an epileptic girl, who had been subject to the paroxysms since her early childhood, and who had a well-marked hypertrophy of the parietal bones, situated near the vertex. The bone was an inch in thickness at its middle part, and projected both externally and internally, the internal projection being estimated to be three eighths of an inch beyond the normal plane of the internal table of the skull. The tumor was completely removed, leaving a circular aperture which was two inches in diameter. The dura mater was healthy, and not abnormally adherent. Recovery from the operation was speedy and satisfactory; but a month later the fits returned, and six months afterward became as frequent and violent as before. In this case there was no history of injury, and, therefore, there was greater reason to hope that an operation would prove beneficial.

CASE VII.—Margaret F., aged thirty-nine, married (?), was sent to me by Dr. R. W. Ammon, who saw her early in November, and has furnished the following notes of the case: "Bright's disease," three to four years ago (swollen feet, backache); was sick nine months. Five weeks ago struck head (left parietal region) against sharp corner; was knocked down and dazed, but not stunned; no fit at time; no signs of fracture or concussion; thinks there has always been a lump there since.

"Two weeks after injury had a 'fit'; lost consciousness, and fell. Since then, at intervals of about a week, has had short epileptic attacks, preceded by queer feeling in tongue, sensation of pins and needles in right hand; then an inversion of right hand, and loss of consciousness; a fall, tongue bitten, etc. Loss of consciousness very short—three to four seconds. Afterward feels weak, and sleeps. Thinks that right hand has lost strength; has headache in right fronto-parietal region; denies syphilis; on examination, right side of face weak; tongue straight when protruded; grasp of left hand nearly as strong as right (25–30); a doubtful limp in right leg; tenderness over site of in-

* A letter dated March 25, 1883, has just been received from the patient's father, stating that the operation has been followed by some amelioration of his condition, the epileptic seizures being somewhat less violent, the headache less intense, and the weakness of the right hand less marked.

jury, which patient indicates as over middle third of ascending parietal convolution; slight aortic direct murmur; ophthalmoscopic examination shows optic disc not choked.

"*Diagnosis.*—Traumatic epilepsy.

"*Treatment.*—Potassium bromide.

"*November 13th.*—Sent to Dr. Sands for operation."

December 18th.—Has been under treatment with bromide of potassium, in ten-grain doses, t. i. d., for some time. Has severe headaches, and at times a piercing pain just at the point of injury. Has had no convulsive attack since admission, and has been going about the hospital ward. Discharged improved.

January 13, 1883.—Readmitted. Has pain on left side of head. Is aphasic at times, and shows some loss of power in both arms. Has fits, and during the fits says she froths at the mouth and bites her tongue.

16th.—Last night had a severe headache, and could not sleep on account of pain.

17th.—Slight facial paralysis of right side. Naso-labial fold narrowed. The tongue in protruding deviates to the right side.

18th.—Both pupils dilated to one fifteenth of an inch. The left pupil contracts moderately on exposure to light. The right less so. Neither responds perfectly.

20th.—Is very stupid, and sleeps most of the time. Ordered sol. potass. brom. 3j every four hours.

29th.—More aphasic. Has an acne-eruption over face, probably due to potass. bromide.

February 1st.—Examination with ophthalmoscope shows choked optic disc on both sides. Dynamometer shows left hand 30 and right hand 26. No exact diagnosis was made either by Dr. Amidon or myself as to the character of the lesion presumed to exist; but we agreed that an explorative operation would be proper, in the hope of discovering a detached splinter of bone from the inner table, a chronic abscess, or some other morbid condition admitting of relief by mechanical means.

6th.—Ether; operation; Dr. Sands.

The scalp being shaved, an incision was made on left side of head, about two inches above the ear, in a direction parallel to the zygoma. The incision was about two and a half inches long. The largest sized trephine was applied nearly opposite the Rolandic line, and a button of bone removed, about a quarter of an inch thick. Nothing was found, excepting that the dura mater was apparently thickened. The incision was extended for about an inch in a direction downward and outward, and the trephine aperture enlarged by means of gouge-forceps. Pulsation of dura absent; no fluctuation could be felt. A large hypodermic needle was thrust through the dura in three different places to the depth of an inch, but nothing withdrawn. In making two of the punctures, however, the needle met with considerable resistance, and the idea of a tumor was suggested. When all bleeding had stopped, wound was closed with fine catgut sutures, except at upper part, which was left open. Iodoform dressing.

9th.—Patient speaks very indistinctly, and not loud enough to be heard at any distance. Was reported as be-

ing delirious last night. Apparently more aphasic than before the operation.

10th.—Less aphasic.

11th.—Patient delirious at times. P. M., patient very noisy, and disturbs the ward. Magendie's solution, ℥x.

12th.—Patient had to be tied in bed on account of delirium. 3.30 P. M., wound dressed under spray, and found to be perfectly clean. Union had taken place throughout. Redressed with carbolized oil, 1-12.

13th.—Slept tolerably well last night. This morning is very delirious. Magendie, ℥x, administered hypodermically.

14th.—Patient this morning was cyanotic. Respiration, 7; pulse, 120 and strong. Pupils contracted and not responsive to light. Ordered atropine sulph., gr. $\frac{1}{125}$. After taking one dose, respiration, 16. Took two more doses before 12 M. After this time, respiration, 4. 2 P. M., respiration, 5; pulse, 140. At 11 P. M., died. Temperature, after operation did not exceed 99°, until the day before death, when it suddenly rose to 103° F.

Report of autopsy by Dr. Delafield:

"*Body.*—Fat.

"*Head.*—A wound upon left side of head which has united, though not firmly, throughout. The wound runs from about two inches above the ear forward parallel with the zygoma. Beneath this the bone has been removed. The wound in the bone is in the left parietal bone near its lower edge. The upper margin of the squamous portion of the temporal bone has been cut through. The opening through the bone is about one inch and a half long, three quarters of an inch broad. The edges are clean cut. The space thus left between the scalp and the dura is filled with some reddish, partly organized clot, and there is a very little pus at its edges and in the upper fibers of the temporal muscle. The dura beneath is adherent to the pia.

"*Brain.*—The portion of dura adherent and just under the wound lies over the middle of the posterior central convolution, and extends a little posterior to it. The fissure of Rolando is not touched by it, but lies a few lines in front. There seems to be no meningitis.

"Just beneath adherent dura, in posterior central convolution, and in convolution just behind it, is a gummy tumor about one inch in diameter.

"*Heart, liver, spleen, lungs, kidneys, and stomach* are normal.

"Fallopian tube of left side terminates in a cyst containing a fœtus."

On reviewing this interesting case in the light of the post-mortem revelation, which seems to indicate a syphilitic origin of the cerebral tumor, it is certainly a subject of regret that the true nature of the disease escaped observation during life, as possibly it might have been controlled by specific treatment. But neither Dr. Amidon nor myself was able to obtain a syphilitic history, or to discover any existing specific lesion. Certainly the symptoms were very misleading. No convulsive seizure or other sign of cerebral trouble preceded the injury to the head, which was inflicted directly over the psycho-motor centers, and which was followed, after the lapse of a fortnight, by epileptiform attacks

in which the convulsive movements were strictly limited to the upper extremity on the side of the body opposite to that where the blow was received. Assuming the morbid growth, however, to have been syphilitic, it must be a matter

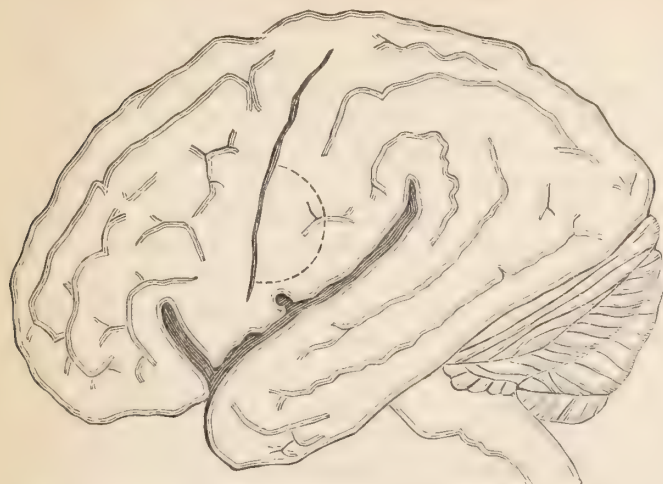


FIG. 1.—LATERAL VIEW OF THE BRAIN, showing the position of the Tumor.

of conjecture whether the injury acted as an exciting cause and determined its development, or whether the causative relation was the reverse, the injury having been due to a fall which occurred when the first epileptic fit was occa-

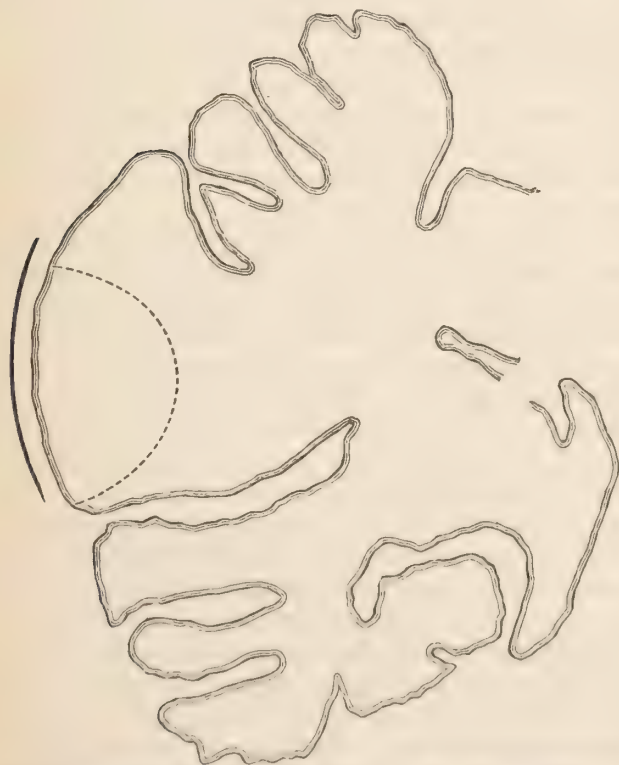


FIG. 2.—TRANSVERSE VERTICAL SECTION OF THE LEFT CEREBRAL HEMI-SPHERE, showing the relation of the Tumor to the Trephine Aperture.

sioned by the already existing gummy tumor. The case is instructive as demonstrating the value of cerebral localization in determining when the trephine should be applied. At the time of the operation the patient suffered from aphasia, impairment of vision, facial paralysis, and partial paralysis of the tongue, as well as from paresis of the right

upper extremity; but, as the affection of the upper limb was observed some time before the other nervous disturbances occurred, it was believed these latter symptoms were due to secondary changes, perhaps to pressure or œdema, and that the primary cause would probably be found in the center governing the movements of this part of the body. The post-mortem examination verified the accuracy of this conclusion, and the accompanying drawing, furnished by the pathologist, Professor Delafield, shows that the tumor occupied the center referred to, and that it lay directly beneath the opening made by the trephine. Finally, although the autopsy disclosed no evidences of cerebral inflammation excited by the operation, the active delirium which set in toward the close of life may possibly have resulted from encephalitis; and it seems certain that death, although inevitable, was hastened by the undue effects of a dose of morphine, administered with the object of relieving this distressing symptom.

MEDICAL ETHICS AND ETIQUETTE.

COMMENTARIES ON THE NATIONAL CODE OF ETHICS.

By AUSTIN FLINT, M. D.

Sixth and Concluding Article.

OF THE DUTIES OF THE PROFESSION TO THE PUBLIC, AND OF THE OBLIGATIONS OF THE PUBLIC TO THE PROFESSION.

ART. I.—*Duties of the Profession to the Public.*

SECTION 1. As good citizens, it is the duty of physicians to be ever vigilant for the welfare of the community, and to bear their part in sustaining its institutions and burdens; they should also be ever ready to give counsel to the public in relation to matters especially appertaining to their profession, as on subjects of medical police, public hygiene, and legal medicine. It is their province to enlighten the public in regard to quarantine regulations—the location, arrangement, and dietaries of hospitals, asylums, schools, prisons, and similar institutions—in relation to the medical police of towns, as drainage, ventilation, etc.—and in regard to measures for the prevention of epidemic and contagious diseases; and, when pestilence prevails, it is their duty to face the danger, and to continue their labors for the alleviation of the suffering, even at the jeopardy of their own lives.

SECTION 2. Medical men should also be always ready, when called on by the legally constituted authorities, to enlighten coroners' inquests and courts of justice on subjects strictly medical—such as involve questions relating to sanity, legitimacy, murder by poisons or other violent means, and in regard to the various other subjects embraced in the science of medical jurisprudence. But in these cases, and especially where they are required to make a post-mortem examination, it is just, in consequence of the time, labor, and skill required, and the responsibility and risk they incur, that the public should award them a proper honorarium.

SECTION 3. There is no profession by the members of which eleemosynary services are more liberally dispensed than the medical, but justice requires that some limits should be placed to the performance of such good offices. Poverty, professional brotherhood, and certain of the public duties referred to in the first section of this article, should always be recognized as presenting valid claims for gratuitous services; but neither institutions endowed by the public or by rich individuals, societies for

mutual benefit, for the insurance of lives or for analogous purposes, nor any profession or occupation, can be admitted to possess such privilege. Nor can it be justly expected of physicians to furnish certificates of inability to serve on juries, to perform militia duty, or to testify to the state of health of persons wishing to insure their lives, obtain pensions, or the like, without a pecuniary acknowledgment. But to individuals in indigent circumstances such professional services should always be cheerfully and freely accorded.

Laudation of the medical profession by physicians for the public may not always be consistent with a proper degree of modesty, but laudation of the profession for its members is not only admissible, but it has a salutary influence. The more physicians are led to regard medicine in its humane and noble aspects, the more they are reconciled to its hardships, and the more they are incited to do all in their power to maintain its character and usefulness. The feeling that honor is reflected by membership of a profession which professes to be governed by the code of medical ethics conduces to a high moral tone, and it is in this way that the code is of great service. It is a beautiful feature of the code that it aims solely at the influence of its ethical rules on the mind, irrespective of any penalties. It is based on the principle that moral rectitude is promoted more by fostering upright sentiments than by the punishment of offenses.

Comments on the duties of physicians, as good citizens, to the public may fairly furnish an occasion for laudatory reflections. In all measures relating to the health and welfare of communities, physicians have been foremost. They have always been found ready to devote knowledge, time, and efforts to these objects. Most medical associations are formed in great part for the purpose of considering and carrying out measures for the promotion of public health. "The American Public Health Association," which was formed in 1872, has for its sole objects "the advancement of sanitary science and the promotion of organizations and measures for the practical application of public hygiene." Members of this association, from all the States of the Union, are, for the most part, medical men. They attend annual meetings, prepare papers which are published in an annual volume of Transactions, and contribute funds for all the expenses of the association. Voluntary law associations, sustained by the medical profession, for the same objects, exist in different parts of the Union. There are not a few medical men in this country whose professional labors are devoted especially, or chiefly, to sanitary science or hygiene, with no expectation of compensation except the satisfaction of having contributed to the promotion of public health or the welfare of the communities in which they live. May we not claim that for these things the medical profession is deserving of praise?

In claiming for the profession praise for the performance of duties to the public, it is not intended in the least to depreciate the binding force of these duties as such. They are so recognized. Within late years, to the study of sanitary science and hygiene has been allotted a distinct department of medicine. Preventive medicine, as this department is called, now holds a prominent place in medical

literature, as well as in the labors of medical men. Recent developments in etiology have already led to most important results as regards the prevention of diseases, and there is reason to believe that these developments are the earnest of those still more important. Few, if any, of those who have given attention to the subject will doubt that in the medicine of the future more is to be expected from the application of knowledge to prophylaxis than to therapeutics. It is needless to add that physicians are morally bound to become acquainted with important facts and laws relating to sanitary science and hygiene as they are developed, in order thereby to be able to fulfill properly their duties to the public. They who are engaged in investigations relating to etiology and pathology are bound to consider and follow out, as far as practicable, the bearings of these on the health and welfare of communities.

It may be said, in the way of laudation, that there are very few instances in which members of the medical profession desert the post of duty in consequence of the danger which may be therewith connected. They generally "face the danger," whether it be on the field of battle or when a pestilence prevails. The profession is entitled to whatever of praise belongs to courage in the performance of professional duty, albeit the courage has no recompense beyond the satisfaction of having followed the dictates of duty. The physicians' roll of honor is the list of those who have died in the performance of professional duty. The history of every epidemic disease furnishes such a list. The risk of life was simply a duty, but who will refuse to accord to it nobleness? Who would remove from the code that portion which enjoins upon physicians that, when pestilence prevails, "it is their duty to face the danger, and to continue their labor for the alleviation of the suffering, even at the jeopardy of their own lives"?

A broad distinction, in respect of pecuniary acknowledgments, exists between the duties which every physician owes to the public in behalf of matters embraced in preventive medicine and the duties connected with the legal administration of justice. Whenever called upon by legally constituted authorities to give advice or expert testimony at coroners' inquests or in courts of justice, in relation to medical questions, physicians should be paid for their services. In view of the services rendered to the public without compensation, for those just referred to there should be adequate pecuniary acknowledgments. Investigations in cases of supposed insanity, of homicide by poisons or other means, etc., and post-mortem examinations, made under instruction by authorities, claim ample remuneration. There is no good reason for physicians being expected to perform these duties gratuitously. Much injustice is often done to the medical profession in regard to these duties. Physicians should not fail, from a false sense of delicacy, to assert their rights in this regard, and they should endeavor to lead the public to recognize the propriety of so doing.

The foregoing remarks concerning those duties to the public for which physicians should receive adequate remuneration will apply equally to certain professional services rendered to institutions and to individuals. These services are referred to in the third section of the article of

the code which relates to the duties of the profession to the public. That these services should be rendered gratuitously seems to be expected, because those which are purely eleemosynary are recognized as such by the profession. Now, this is a good reason for not rendering the services without payment. They are in no sense eleemosynary in their character. It should be generally understood by members of the profession, as well as by the public, that they are to receive pecuniary acknowledgment. A reform in this regard would be of not a little importance to physicians, and the burden on the public would be light. The qualification relating to individuals in indigent circumstances divests the rule of any objection on the score of liberality, and is in accordance with the spirit of beneficence which pervades the entire Code of Ethics.

SECTION 4. It is the duty of physicians, who are frequent witnesses of the enormities committed by quackery, and the injury to health, and even destruction of life, caused by the use of quack medicines, to enlighten the public on these subjects, to expose the injuries sustained by the unwary from the devices and pretensions of artful empirics and impostors. Physicians ought to use all the influence which they may possess, as professors in colleges of pharmacy, and by exercising their option in regard to the shops to which their prescriptions shall be sent to discourage druggists and apothecaries from vending quack or secret medicines, or from being in any way engaged in their manufacture and sale.

Empiricism, in the popular sense of this term—in other words, charlatanry or quackery—has hitherto abounded, and will, doubtless, continue to abound. Its success, depending, as it does, on a peculiarity of certain mental constitutions, is the same at the present time as in the past, and as it will be in the future. The forms of empiricism change with different periods, but the underlying credulity remains unchanged. This credulity has no necessary connection with intellectual endowments, special talents, or extensive acquirements in other branches of knowledge than medicine. Hence, the judgment of those distinguished in law, art, theology, letters, or in business operations, is of no more, and, indeed, of less value than that of persons having good common sense in the middle walk of life.

To enlighten the public on subjects which may be embraced under the name popular medical delusions is not easy. There are difficulties not readily overcome. In the first place, persons fall into these delusions from an intrinsic proclivity thereto, and not as a result of investigation or a logical process of reasoning. Arguments, however cogent, and evidence, however strong, are, therefore, often of no avail. In the second place, efforts to enlighten the public on these subjects by physicians are met by a belief that they are prejudiced and interested parties. In the third place, whenever one has committed himself to an empirical doctrine or system of practice, the feelings of egotism and pride are powerful obstacles in the way to a conviction of error. The mind strives to find support in the opinions which have been adopted, and resists proof against their validity. Hence, in order to gain strength thereby in their opinions, they endeavor to make proselytes. For those who are open to a fair consideration of these subjects, it would seem that

the following points should be conclusive: It can hardly be denied that educated medical men are the most competent to form correct judgments concerning questions which relate to etiology, pathology, and therapeutics. If there be truth in any assumed discovery or improvement in these branches of knowledge, it is plainly for the interest of medical men to adopt them. Sooner or later physicians must accept real discoveries or improvements. Is it not, therefore, the safest policy to be governed by the verdict of the medical profession?

The position taken by the medical profession in regard to secret remedies is not generally understood by the public. It is simply this: If these remedies be really valuable, they should be made known for the benefit of all mankind. They should not be kept secret or patented for personal gain. There should be no mystery connected with them. Surely this position is disinterested, and in accordance with the dictates of humanity. The action advised by the code in regard to druggists and apothecaries who prepare or vend secret nostrums is one which it would be well for physicians to adhere to more strictly than is usually done—namely, to discriminate, in sending their prescriptions, in favor of the shops which have nothing to do with these nostrums. In this way their sale can be discouraged, and something accomplished toward directing the attention of the public to the subject from a proper point of view.

Within late years a custom has arisen and become largely prevalent among pharmacutists which should be discountenanced by the medical profession. Reference is had to the diversity of medicinal preparations compounded of different drugs, and extensively advertised for the use of physicians and the public. These are now known as "proprietary medicines." A legal right of proprietorship is secured and held by vending them under a trade-mark. The custom is objectionable for several reasons. It encourages a popular use of drugs without medical advice. The use of these medical compounds interferes with the combinations by physicians in adaptation to indications in individual cases of disease. Their use interferes with accurate observations of the effects of particular drugs. Finally, there can be no guarantee that the preparations are what they purport to be. As a rule, the best policy with reference to the welfare of patients and to experience in therapeutics is to prescribe potential remedies separately, rather than in combination, and, when prescribed in combination, to give preference to officinal preparations. It is not denied that some of the so-called proprietary remedies are useful, and it is not intended by these remarks to imply that new remedies are not to be properly tested by clinical observations. There is a manifest impropriety in giving certificates recommending any of the multitudinous pharmaceutical compounds with which the country is flooded. If a physician have been led by his experience to form a favorable opinion of any one of these, or of a new remedy, the proper channels of communication with the profession is through the medium of medical books or journals. Communication with the public by certificates or articles in newspapers is in violation of the Code of Ethics.

ART. II.—*Obligations of the Public to Physicians.*

SECTION 1. The benefits accruing to the public, directly and indirectly, from the active and unwearied beneficence of the profession, are so numerous and important that physicians are justly entitled to the utmost consideration and respect from the community. The public ought likewise to entertain a just appreciation of medical qualifications; to make a proper discrimination between true science and the assumptions of ignorance and empiricism—to afford every encouragement and facility for the acquisition of medical education—and no longer to allow the statute-books to exhibit the anomaly of exacting knowledge from physicians, under a liability to heavy penalties, and of making them obnoxious to punishment for resorting to the only means of obtaining it.

The claims of the medical profession to the consideration and respect of the community have been already commented on sufficiently in connection with other portions of the Code of Ethics. A just appreciation of medical qualifications by the public is desirable as an incentive to members of the profession to aim at these, and as a reward for their possession. In these points of view, it is discouraging to the votaries of true science for the assumptions of ignorance and empiricism to be successful in obtaining popular distinction. The public can not be expected always to judge correctly between real qualifications and false assumptions. True distinction in medicine, therefore, must be based on the opinions of unbiased medical men.

The apathy and indifference on the part of the public to medical education is a singular incongruity, in view of the immense importance of well-educated physicians to every community. The interests of medical education are left almost wholly to physicians, whereas these interests concern the public vastly more than the medical profession. If the public could be made to see this subject in a proper light, there would be no lack of accommodations, provisions, and appliances for all the departments of medical instruction. The last sentence of the Code of Ethics refers especially to the absence of legal enactments in behalf of the practical study of anatomy. Since the adoption of the code in 1847, much has been accomplished, chiefly by the efforts of physicians, in the legalization of this study and the provisions for obtaining subjects for dissection. In many parts of the Union, however, much is yet to be accomplished. Let the public consider that, if adequate laws be enacted, there will be no occasion for occurrences which naturally and properly shock the feelings of a community. Let it also be considered that the public welfare is promoted by affording all proper facilities for clinical study and teaching, by encouraging pathological investigations, by refusing sympathy with the pseudo-humanitarians who would interdict experimental researches upon the lower animals, and by bestowing honorable distinction on those who are justly deserving of it. The public welfare is promoted just in proportion as thereby medical science is advanced and medical education improved. The time will come when not only public authorities will appreciate the importance of co-operating with the medical profession in behalf of the interests of medical science and education, but private munificence will take this direction. For the cause of humanity, as well as the honor

of the profession, a full recognition of the obligations of the public to physicians is a "consummation devoutly to be wished."

(To be concluded.)

Clinical Reports.

NEW YORK HOSPITAL.

POPLITEAL ANEURYSM TREATED WITH ESMARCH'S BANDAGE. EXTENSIVE NECROSIS OF THE TIBIA—AMPUTATION AT THE KNEE JOINT. AMPUTATION AT THE KNEE JOINT FOR COMPOUND FRACTURE OF THE LEG. INTERNAL URETHROTOMY FOR STRICTURE OF THE URETHRA.

Clinical Remarks

By ROBERT F. WEIR, M.D.

I.

(Reported by R. C. SHULTZ, M.D.)

CASE I.—POPLITEAL ANEURYSM TREATED BY THE ESMARCH BANDAGE.

GENTLEMEN: This patient whom I now show you is a Chinaman, forty-three years of age. He has a popliteal aneurism, but he gives no history of any disease that is said to induce weakness of the coats of the arteries, such as syphilis, etc.; but he states that, in consequence of a severe strain more than two years ago, the leg being at the time forcibly extended, he felt sudden pain in the right knee; afterward he observed swelling and pulsation in the popliteal space. Within the past few weeks this swelling has rapidly increased in size, and the pulsation, which is synchronous with the heart-beat, has become much more distinct. Pressure upon the femoral artery above arrests pulsation in the tumor in some degree, and causes a diminution in its size. These facts point conclusively to an aneurysmal dilatation of the artery in the popliteal space. The loud bruit which can be heard over the tumor is due to the passage of blood over deposits of fibrin, and would point to a sacculated rather than a spindle-form dilatation of the coats of the vessel. Experience also tells us that the former condition is the one usually met with in the locality.

The plan of treatment which it is proposed to adopt in this case is, if possible, to arrest the circulation of the blood through the tumor sufficiently long to admit of coagulation and the formation of a clot. The principle upon which the treatment is based might be considered at first sight the same as that adopted many years ago. Up to quite a recent period the endeavor on the part of surgeons was to imitate nature and fill the sac of an aneurysm by masses of fibrin. This was accomplished mainly by slowing the current of blood through the aneurysm by either ligating or compressing the artery nearer the heart. By the former procedure the collateral circulation allowed blood, it was said, to flow gently through the aneurysm until it became filled with the desired firm clot in which fibrin predominated. By compression of the main artery above the aneurysm, generally carried on intermittently, the same thing was accomplished. A number of cases occurred, however, in the practice principally of the Irish surgeons, which showed that the complete occlusion of the blood current through an aneurysmal sac from one to four hours was not only free from risk of gangrene, but also that it effected a cure. Aneurysms of the iliac arteries were thus successfully treated by compression of the abdominal aorta. Though a soft ordinary clot was thus shown to answer satisfactorily in permanently consolidating an aneurysm, yet the means of compressing the artery lead-

ing to an aneurysm remained incomplete until the elastic bandage of Esmarch became known to the profession. In 1875, Dr. Walter Reid applied for the first time the elastic bandage to the limb below and above an aneurysmal tumor for sufficient length of time to allow of the formation of a soft blood clot that afterward became hardened and permanent.

The method was originally made use of in a case of popliteal aneurysm; the elastic bandage was applied from the foot to near the site of the tumor, and from just above the tumor to near the commencement of the femoral artery. On removing the bandage at the end of fifty minutes, it was found that the circulation in the tumor had ceased and was afterward carried on collaterally in the parts below. Although the danger from gangrene and secondary hæmorrhage from the old method of treatment by ligation of the femoral artery has been reduced to a minimum since the introduction of Listerism, still this result obtained by Reid may be considered a great advance in the treatment of these cases. This fact is especially and forcibly impressed on us if we refer to the statistics of the old methods of treatment given by Dr. Norris, who found that, out of some two hundred and four cases, gangrene or secondary hæmorrhage had occurred in fifty instances; and an English surgeon found that, out of about sixty cases in which the femoral artery had been tied, gangrene occurred in about one third. The treatment by the Esmarch bandage has now been practiced in about one hundred cases with only fifteen per cent. of failures and two deaths. In one of the cases in which death occurred the bandage had been left on by mistake for seven hours, and gangrene had set in. There was also present fatty degeneration of the heart. The other case was one of Mr. Rivington, of London, in which he made compression of the femoral artery for a considerable time following rupture of the aneurysm, which affected the anterior tibial artery. In another case, that of Mr. Bryant, of London, gangrene occurred in the leg, necessitating amputation, after a ligation of the femoral artery resorted to two weeks after an unsuccessful trial of the elastic bandage.

I will now proceed to apply the Esmarch bandage round this man's leg, commencing at the foot, passing over and not compressing the aneurysm itself, and ending near the groin, where the limb is encircled by two turns of rubber tubing, which, secured by a clamp, acts as a tourniquet. After a few minutes a hypodermic injection of morphine will be given—a large one, because the patient is more or less addicted to the use of opium; and later, when the pain becomes considerable, an anæsthetic will be administered. The rubber bandage will be allowed to remain on fifteen or twenty minutes, and the tourniquet an hour or an hour and a half, when it will be gradually let up to determine whether the circulation through the tumor has ceased; if so, the tourniquet will not be taken off entirely, but the pressure will be slightly kept up by an ordinary Signoroni's tourniquet for an hour longer, when it is hoped the clot will be hard enough to remain permanently. However, should this large amount of coagulated blood afterward become broken down and enter the circulation, the danger will not be so great as one might suppose, for in no case has it yet led to any serious result.

[NOTE.—The patient was brought before the class at the end of the clinic with the aneurysm filled with a solid clot, devoid of pulsation even when the tourniquet was removed. Signoroni's horseshoe tourniquet was directed to be kept on for an hour longer, with very light pressure.]

CASE II.—EXTENSIVE NECROSIS OF THE TIBIA—AMPUTATION AT THE KNEE JOINT.

We have a case here, gentlemen, the outcome of which is somewhat doubtful. It is that of a child eleven years of age,

who, six or seven years ago, received an injury which produced a compound fracture of the right leg. Death of the bone took place to some extent, requiring an operation for its removal. The operation had to be repeated a year and a half later, and again three years ago. At present we find many sinuses discharging pus, and leading down to dead bone. The patient's condition is very low, but I think it advisable to explore these sinuses with the thoroughness afforded by the anæsthesia, and see if the dead bone can not be removed without sacrificing the leg by amputation. We have the more hope of a successful result from the operation for removal of the necrosed portion of bone in this case since there are no indications of the presence of kidney disease. I do not think, however, that the presence of the symptoms of kidney trouble constitutes so strong a contraindication to the operation as was at one time supposed, for it has been found in several instances that the renal symptoms, presumably from amyloid disease, disappeared with the arrest of the discharge from the wound following the operation. On cutting down upon the bone, I find that the entire shaft of the tibia is involved; and, moreover, the periosteum is diseased so extensively that no attempt has been made toward repair. There is not the slightest appearance of an involucrum. I will make a perforation of the bone; by this I see that the entire shaft of the bone is dead, that its cavity is filled with pus. These conditions, conjoined with the septic symptoms of rapid pulse, and temperature elevation to 104°, convince me it would be worse than useless to try to save the leg. We will, therefore, proceed to amputate at the knee joint, and, if it is impossible to get a sufficient amount of flap not affected by the disease, the end of the condyle will be cut off. You will observe, having, fortunately, sufficient flap for an exarticulation, that I open up the upper synovial pouch of the joint on each side thoroughly and insert a drainage tube, so that there shall be no opportunity for the collection of matter in this cavity. This avoids the tendency to abscess met with in this amputation. The drainage tube used is the decalcified bone of Neuber. We apply carbolyzed peat dressing, hoping to avoid the necessity of changing it frequently, which sometimes happens when the Lister dressing is used alone, and thus to secure as long as possible perfect rest to the stump, and so help to a rapid union. Pathological amputations usually give better results than where amputation is performed immediately after the receipt of an injury. We hope to be able to show you this patient in a much improved condition at a future clinic.

CASE III.—AMPUTATION AT THE KNEE JOINT FOR COMPOUND FRACTURE OF THE LEG.

This patient is a man of irregular habits, aged fifty years, who fell from a ladder on the 22d of December, 1882, and sustained a compound fracture of the leg near the ankle. The fractured bone was dressed with an antiseptic dressing, as is usual in such cases, but, unfortunately, it was not ascertained until a day or two later that the ankle joint had been involved in the injury; otherwise a somewhat different method of drainage might have been adopted. The antiseptic treatment, so far as it could be carried out under the circumstances, failed, supuration took place freely, the temperature rose, and, the patient's condition deteriorating, amputation of the limb was suggested, but the patient refused it. Afterward, diarrhoea, delirium, and elevation of temperature (103°) set in. Evidences of sepsis occurred, and removal of the limb was consented to yesterday; and we shall proceed to do this operation to-day. Did time permit, this would be a suitable occasion to refer to some points in regard to when conservative surgery should be abandoned in the treatment of compound fractures and amputation resorted to. I can only state at present that in a case like this, when the temperature begins to rise at night and to fall again in the morn-

ing, when the patient begins to lose flesh rapidly, when he is more or less delirious at night, and, when the bowels begin to move pretty freely and are not readily checked, it is full time to proceed at once to amputate the limb. Amputation in a patient under the conditions of the present one is much more serious than in the preceding one, not only because of the difference in the ages, but because, unlike in the former case, the disease has not existed for months and years, giving rise to a degree of toleration, but is comparatively recent, and amputation will only be a source of additional shock. The rule holds good in this case, that the more remote from the trunk the amputation is performed the less is the risk to the patient's life, and we shall amputate as low down on the limb as possible, consistent with a sufficient amount of healthy skin for a flap. The results of amputations after symptoms of blood-poisoning had set in, in olden times, were much worse than at present. Billroth has found that out of fifty amputations made at his clinic after septicæmia had declared itself, only seventeen of the patients died—a remarkably good result. We hope to be equally favored in these cases.

CASE IV.—INTERNAL URETHROTOMY FOR STRICTURE OF THE URETHRA.

The last patient upon whom we will operate to-day is a man who is suffering from moderate retention of urine due to a stricture, the result of a gonorrhœa contracted about twelve years ago. About two years later the patient noticed that the stream passed was not so large as usual; he micturated frequently, had suffered from pains in the region of the bladder, and in the back and legs. Retention has never been of long duration, but he has at times found it necessary to strain considerably in order to pass his urine. On introducing an instrument, we find the distance down to the site of the stricture to be about five inches and a half, or nearly three quarters of an inch anterior to the triangular ligament. I may remark here that it is important, in passing an instrument, to determine the depth and seat of a stricture, to pass one finger into the rectum at the same time in order to determine the relation of the stricture or point at which the instrument is obstructed to the apex of the prostate gland. The importance of this precaution will be evident if we suppose extravasation has occurred, forming a perineal tumor, for, by estimating the distance upon the sound alone you may suppose the stricture to be more deeply situated than it is in fact, that it lies beyond Buck's fascia, and that the extravasation has therefore taken place backward. But remember, gentlemen, that in the great majority of cases, the statement of some text-books to the contrary notwithstanding, the seat of close deep strictures is just anterior to the triangular ligament, and when extravasation takes place it does so anteriorly, and the tumor formed thereby should be opened at once without hesitation.

Yesterday we were able to pass a small flexible bougie beyond the stricture; to-day we find it impossible to do so, and it is only after a great deal of difficulty that we have been able to pass a whalebone bougie. You have observed the tendency which the bougie had to enter a follicle near the stricture and to become arrested; by first filling the urethra with oil and then passing one bougie after another, and leaving them in position until the follicle would contain no more, we were at last enabled to pass one through into the bladder. The peculiar grasp which the stricture gives to the bougie while the patient is under the influence of an anæsthetic is pathognomonic, and indicates an organic, not a spasmodic, stricture. Indeed, this biting may be considered as pathognomonic of organic stricture, even when the examination is made without an anæsthetic; at least I have never known it to be produced by any other than an organic stricture.

There are two principal methods of treating cases of urethral stricture such as the one before us to-day, and the opinion

of surgeons with regard to the relative value of these two methods varies greatly. In the one case the treatment consists in the passage of instruments of increasing size every two or three days for some time, with the object of dilating the constriction; the other method is to pass a cutting instrument and divide the constriction to the proper size at once. It has been claimed for the former method that it is the safer, but the validity of the claim is very doubtful. In a series consisting of five hundred and sixty-five cases, collected by Mr. Bryant, it has been found that the mortality by dilatation is six per cent. Grégory, however, gives a table of eight hundred cases of internal urethrotomy, with forty-six deaths, or a mortality of 5.66 per cent. Dilatation certainly possesses this disadvantage: that it is not infrequently followed by urethral chill and fever, much less so than urethrotomy is. I have never in private practice, among patients who are able to take proper care of themselves, lost a single case after internal urethrotomy. As much can not be said for hospital practice, for there the patients are often in a condition anything but favorable. I believe that in a young subject, like this man, whose health is good, in whom there is no evidence of kidney or bladder trouble in any marked degree, internal urethrotomy is not only as safe as dilatation, but that it effects relief much more promptly, the patient is able to return to his business much more quickly, and I also believe that the danger of recontraction is postponed much longer than after dilatation. Recontraction, however, will, in all probability, take place sooner or later; I have seen it occur in so many cases that I expect it as a rule, and warn the patient of the danger. Even in external urethrotomy, which was practiced very extensively in these cases some forty years ago, and in which the stricture was completely divided throughout its whole extent, recontraction took place, just as it does now, after the operation of internal urethrotomy.

We shall divide this stricture by passing a Maisonneuve urethrotome with a tunneled end over the whalebone bougie that has been introduced into the bladder. A cutting blade eleven millimetres in width will be employed, dividing the strictured portion along its upper surface sufficiently as it enters to admit a No. 26 sound; then turning the instrument slightly, another incision will be made as it is withdrawn, after which we hope to be able to pass a sound of full size. I do not state positively that we will be able to do so, for sometimes the elasticity of the stricture is such that the instrument may fail to make an incision corresponding to its full size. You will observe that in this case we have succeeded in dividing the stricture thoroughly; a No. 34 sound passes without difficulty, although it must be remembered that the patient is under the influence of ether. Reference is made to about No. 32 or 33 as the normal size, and not to the rule laid down by Dr. Otis, that the size of the urethra corresponds to that of the circumference of the penis—a rule to which I believe there are many exceptions. Only very recently a patient presented himself whose penis measured only three inches and a quarter in circumference, while the urethra admitted a No. 41 sound.

With regard to the use of quinine for the prevention of urethral chill, I have found it of very little efficacy, and this experience is confirmed by that of Malherbe, a French observer, who has investigated the matter thoroughly. A better result is obtained, I think, from the administration of three or four minims of the tincture of aconite with an eighth of a grain of morphine, every three to six hours for the first day, to be repeated if a chill comes on, and alkalies for their effect upon the urine. Further precautions may be necessary where kidney trouble is threatened. No attempt is to be made to introduce a sound into the bladder for at least four days, and only then if the temperature be normal.

Book Notices.

Lehrbuch der Hautkrankheiten. Für Aerzte und Studierende bearbeitet von Dr. GUSTAV BEHREND, Privatdocent an der königl. Universität in Berlin. Zweite vermehrte Auflage, mit 43 Holzschnitten. Berlin: August Hirschwald, 1883. Pp. xii-612.

THIS second edition of Behrend's work (the first having been published in 1879) is a great advance upon the old, both in size—it now appearing as an octavo, whereas in the first it was in duodecimo form—and in its general appearance; the text is amplified, and the illustrations are more numerous, a fair proportion of the latter being original. In short, it makes a handsome volume, in the place of one having the appearance of a mediocre manual.

Treatises on dermatology have become so numerous of late that no such field is possible as in the times of the elder Hebra, of Wil-on, or of Hardy, so that we can no longer look for any great originality of thought in such works; authors on these subjects must be content with the rank of good compilers. In the volume before us, however, we think German thought on dermatological matters has one of its best, if not its very best exponent. We consider it excellent in conciseness and clearness of method and diction, while its faults, or rather omissions, are few in number, and are those of all German writers on the subject, consisting chiefly in the relatively imperfect consideration of therapeutics and symptomatology. Of local and mechanical therapeutic means enough is said, and methods are mentioned which certainly must always be dead letters here, for patients in this country can not be brought to submit to the treatment. Again, many medicaments, both for internal and for external use, are either dismissed with a slighting reference or not mentioned at all; for instance, the oleates of the various metals, phosphorus, ergot, calx sulphurata, the various preparations of the strychnos family, gurjun and chaulmoogra oils, and many others.

The chapter on the anatomy, and that on the physiological functions, of the skin, though brief, are admirably given; and the pathology of the different skin affections deserves the same praise. The classification of Hebra is retained with unimportant modifications.

We are pleased with some of Behrend's deviations from the teachings of the Viennese school in certain directions—as, for instance, in the aetiology of varicella, lupus, etc.—the Viennese school insisting on the identity, or at least the close relationship, of the first named with variola, which Behrend entirely denies.

In short, the volume as a whole is a strong, well-written work, which we should be glad to see translated, and so given to the non-German-reading medical public.

BOOKS AND PAMPHLETS RECEIVED.

The Diseases of Women. A Manual for Physicians and Students. By Heinrich Fritsch, M. D., Professor of Gynecology and Obstetrics at the University of Halle. Translated by Isidor Furst. With 159 wood engravings. New York: William Wood & Co., 1883. Pp. vi-355. [Wood's Library of Standard Medical Authors.]

First Annual Report of the State Board of Health of Indiana. For the fiscal year ending October 31, 1882. [Thad. M. Stevens, M. D., Secretary and Executive Officer, Indianapolis.]

First Annual Report of the Board of Health of Kansas City. For the calendar year 1882. [From Dr. John Fee, City Physician.]

De l'emploi de la résorcine dans le traitement du chancre simple chez la femme. Par MM. les docteurs A. Leblond et Fisiaux. Pp. 8. [Reprint from the "Annales de gynécologie."]

The Photography of Microscopic Sections. By James Whittson, M. D., etc. Pp. 5. [Reprint from the "Glasgow Medical Journal."]

Ninety-third Annual Report of the Board of Trustees of the New York Dispensary. January, 1883.

Thirty-sixth Annual Commencement of the Starling Medical College. Address by Professor Loving to the Graduating Class. Columbus, 1883. Pp. 15.

Lectures on Orthopædic Surgery and Diseases of the Joints, delivered at Bellevue Hospital Medical College, during the winter session of 1874-'75. By Lewis A. Sayre, M. D., Professor of Orthopædic Surgery and Clinical Surgery, etc. Second edition, revised and greatly enlarged, with 324 illustrations. New York: D. Appleton & Co., 1883. Pp. xx-569.

Student's Guide to Diseases of the Eye. By Edward Nettleship, F. R. C. S., Ophthalmic Surgeon to St. Thomas's Hospital, etc. Second American, from the second revised and enlarged English edition. With a chapter on Examination for Color Perception, by William Thomson, M. D., Professor of Ophthalmology in the Jefferson Medical College. Philadelphia: Henry C. Lea's Son & Co., 1883. Pp. xix-13 to 416, inclusive.

Manuel des injections sous-cutanées. Par Bourneville, médecin de Bicêtre, et Bricon, docteur en médecine. Paris: Librairie du Progrès médical, 1883. 12mo. Pp. xxxvi-174. [Prix: broché, 2.50f.; cartonné, 3f.]

Ueber den respiratorischen Gasaustausch beim fiebernden Menschen. Von Prof. Dr. Gustav Wertheim, k. k. Primararzt. Pp. 11. [Separat-Abdruck aus den "Mittheilungen des wienner medicinischen Doctoren-Collegiums."]

Ueber die Aenderungen der Leistungsfähigkeit und der Erregbarkeit des ermüdenden Froschherzens. Von Dr. Th. Mays. Pp. 6. [Separat-Abdruck aus den "Verhandlungen der physiologischen Gesellschaft zu Berlin."]

Fifth Annual Report of the Managers of the Adams Nervine Asylum, 1882.

Proposed Ordinance and Rules and Regulations for Regulating the Plumbing, House Drainage, Registration, and Licensing of Plumbers in the City of Philadelphia, as reported by the Committee of Twenty-one. Philadelphia: P. Blakiston, Son & Co., 1883. Pp. 14. [Price, 10c.]

Microscopical Examination of Potable Waters in the State of Connecticut. By William J. Lewis, M. D. Pp. 20. [Reprint from the "Proceedings of the State Board of Health," 1883.]

Review of the Drug Trade of New York, for the year 1882. Prepared by D. C. Robbins, Esq., for the Twenty-fifth Annual Report of the Chamber of Commerce of the State of New York.

Medical Economy during the Middle Ages: A Contribution to the History of European Morals, from the Time of the Roman Empire to the Close of the Fourteenth Century. By George F. Fort, author of the "Early History and Antiquities of Freemasonry." New York: J. W. Bouton, 1883. Pp. xii-488.

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THE DINNER TO DR. OLIVER WENDELL HOLMES.

At the dinner given to Professor Oliver Wendell Holmes on Thursday night, the 12th inst., at Delmonico's, upward of two hundred gentlemen were present, all physicians, except a few of the invited guests. Dr. Fordyce Barker presided, with Dr. Holmes, the Hon. William M. Evarts, Dr. John T. Metcalfe, Mr. George William Curtis, Dr. S. O. Van der Poel, Dr. J. S. Billings, of the army, Dr. Lewis A. Sayre, Dr. Thomas Addis Emmet, and Dr. Alfred C. Post on his right, and the Right Reverend the Bishop of Rhode Island, Mr. Whitelaw Reid, of the "Tribune," Dr. John C. Dalton, Dr. S. Weir Mitchell, of Philadelphia, Dr. T. Gaillard Thomas, Dr. William Detmold, Dr. Thomas M. Markoe, Dr. James Anderson, and Dr. Isaac E. Taylor on his left. In addition to those who represented the medical profession of the city, a few physicians from out of town were present, among them Dr. James R. Chadwick, of Boston; Dr. John O. Roe, of Rochester; Dr. John B. Roberts and Dr. J. V. Shoemaker, of Philadelphia; Dr. George L. Porter, of Bridgeport, Conn.; Dr. C. M. Carleton, of Norwich, Conn.; and Dr. W. A. M. Wainwright, of Hartford, Conn. Dr. Henry D. Noyes acted as toast-master.

Dr. Barker extended a brief greeting to the guest of the evening, and then called upon Dr. Andrew H. Smith, who gave a supplementary greeting in the form of the following verses:

You've heard of the deacon's one-hoss shay
Which, finished in Boston the self-same day
That the City of Lisbon went to pot,
Did a century's service, and then was not.
But the record's at fault which says that it bust
Into simply a heap of amorphous dust;
For, after the wreck of that wonderful tub,
Out of the ruins they saved a hub;
And the hub has since stood for Boston town,
Hub of the Universe—note that down.
But an orderly hub, as all will own,
Must have something central to turn upon,
And, rubber-cushioned, and true, and bright,
We have the axle here to-night.
Thrice welcome, then, to our festal board
The doctor-poet, so doubly stored
With science as well as with native wit;
Pocula nascitur, you know, *non fit*.
Skilled to dissect with knife or pen,
His subjects dead or living men;
With thoughts sublime on every page
To swell the veins with virtuous rage,
Or with a syringe to inject them
With sublimate to disinfect them;
To show with demonstrator's art
The complex chambers of the heart,
Or, armed with a diviner skill,
To make it pulsate at his will;

With generous verse to celebrate
The loaves and fishes of some giver,
And then proceed to demonstrate
The lobes and fissures of the liver;
To soothe the pulses of the brain
With poetry's enchanting strain,
Or to describe to class uproarious
Pes hippocampi accessorius;
To nerve with fervor of appeal
The sluggish muscles into steel,
Or, pulling their attachments, show
Whence they arise and where they go;
To fire the eye by wit consummate,
Or draw the aqueous humor from it;
In times of peril give the tone
To public feeling called backbone,
Or to discuss that question solemn,
The muscles of the spinal column.
And now I close my artless ditty
As per agreement with committee,
And, making place for those more able,
I leave the subject on the table.

Yet one word more. I've had my pride
As *medicus* most sorely tried,
When Englishmen, who sometimes show
Of things American, you know,
An ignorance that is melancholy,
As Dr. Holmes is very jolly,
Assume that he must therefore be
A Doctor of Divinity.
So to avoid all chance of wrong
To medicine, or church, or song,
Let Doctor Holmes discarded be
For Oliver Wendell Holmes, M. D.

And now, for I really must come to an end,
May the fate of the chaise be the fate of our friend.
May he never break down, and never wear out,
But a century old, or thereabout,
Not feeling the weight of the years as they fly,
Simply stop living when ready to die.

In response to the toast, "Our guest," Dr. Holmes read the following:

Have I deserved your kindness? Nay, my friends,
While the fair banquet its illusion lends
Let me believe it, though the blood may rush
And to my cheek recall the maiden blush
That o'er it flamed with momentary blaze
When first I heard the honeyed words of praise,
Let me believe it while the roses wear
Their bloom unwithering in the heated air;
Too soon, too soon, their glowing leaves must fall,
The laughing echoes leave the silent hall,
Joy drop his garland, turn his empty cup,
And weary labor take his burden up—
How weighs that burden they can tell alone
Whose dial marks no moment as their own.

Am I your creditor? Too well I know
How friendship pays the debt it does not owe,
Shapes a poor semblance fondly to its mind,
Adds all the virtues that it fails to find,
Adorns with graces to its heart's content,
Borrows from love what nature never lent,
Till what with halo, jewels, gilding, paint,
The veriest sinner deems himself a saint.
Thus while you pay these honors as my due,
I owe my value's larger part to you,

And in the tribute of the hour I see
Not what I am, but what I ought to be.

Friends of the Muse, to you of right belong
The first staid footsteps of my square-toed song;
Full well I know the strong heroic line
Has lost its fashion since I made it mine;
But there are tricks old singers will not learn,
And this grave measure still must serve my turn.
So the old bird resumes the self-same note
His first young summer wakened in his throat;
The self-same tune the old canary sings,
And all unchanged the bobolink's carol rings;
When the tired songsters of the day are still
The thrush repeats his long-remembered trill;
Age alters not the crow's persistent caw,
The Yankee's "Haw," the stammering Briton's "Haw";
And so the hand that takes the lyre for you
Plays the old tune on strings that once were new.
Nor let the rhymester of the hour deride
The straight-backed measure with its stately stride;
It gave the mighty voice of Dryden scope;
It sheathed the steel-bright epigrams of Pope;
In Goldsmith's verse it learned a sweeter strain;
Byron and Campbell wore its clanking chain;
I smile to listen while the critic's scorn
Flouts the proud purple kings have nobly worn;
Bid each new rhymester try his dainty skill
And mold his frozen phrases as he will;
We thank the artist for his neat device;
The shape is pleasing, though the stuff is ice.

Fashions will change—the new costume allures,
Unfading still the better type endures;
While the slashed doublet of the cavalier
Gave the old knight the pomp of chancicler,
Our last-hatched dandy with his glass and stick
Recalls the semblance of a new-born chick
(To match the model he is aiming at
He ought to wear an egg-shell for a hat);
Which of these objects would a painter choose,
And which Velasquez or Van Dyke refuse?

When your kind summons reached my calm retreat,
Who are the friends, I questioned, I shall meet?
Some in young manhood shivering with desire
To feel the genial warmth of fortune's fire—
Each with his bellows ready in his hand
To puff the flame just waiting to be fanned;
Some heads half-silvered, some with snow-white hair—
A crown ungarnished glistening here and there,
The mimic moonlight gleaming on the scalps
As evening's Empress lights the shining Alps.
But count the crowds that throng your festal scenes,
How few that knew the century in its teens!

Save for the lingering handful fate befriends,
Life's busy day the Sabbath decade ends;
When that is over, how with what remains
Of nature's outfit, muscle, nerve, and brains?

Were this a pulpit I should doubtless preach,
Were this a platform I should gravely teach,
But to no solemn duties I pretend
In my vocation at the table's end,
So as my answer let me tell instead
What Landlord Porter—rest his soul!—once said.

A feast it was that none might scorn to share;
Cambridge and Concord's demigods were there—
"And who were they?" You know as well as I
The stars long glittering in our Eastern sky—

The names that blazon our provincial scroll
Ring round the world with Britain's drumbeat roll!

Good was the dinner, better was the talk;
Some whispered, devious was the homeward walk;
The story came from some reporting spy—
They lie, those fellows—oh, how they lie!
Not ours those foot-tracks in the new-fallen snow—
Poets and sages never zigzagged so!

Now, Landlord Porter, grave, concise, severe,
Master, nay, Monarch, in his proper sphere,
Though to belles-lettres he pretended not,
Lived close to Harvard, so knew what was what,
And, having bards, philosophers, and such,
To eat his dinner, put the finest touch
His art could teach, those learned mouths to fill
With the best proofs of gustatory skill.
And, finding wisdom plenty at his board,
Wit, science, learning, all his guests had stored,
By way of contrast ventured to produce,
To please their palates, an inviting goose.

Better it were the company should starve
Than hands unskilled that goose attempt to carve;
None but the master-artist shall assail
The bird that turns the mightiest surgeon pale.

One voice arises from the banquet hall—
The landlord answers to the pleading call;
Of stature tall, sublime of port he stands,
His blade and trident gleaming in his hands.
Beneath his glance the strong-knit joints relax
As the weak knees before the headsman's axe,
And Landlord Porter lifts his glittering knife
As some stout warrior armed for bloody strife;
All eyes are on him; some in whispers ask
What man is he who dares this dangerous task?
When, lo! the triumph of consummate art,
With scarce a touch the creature drops apart!
As when the baby in his nurse's lap
Spills on the carpet a dissected map.

Then the calm sage, the monarch of the lyre,
Critics and men of science all admire,
And one whose wisdom I will not impeach,
Lively, not churlish, somewhat free of speech,
Speaks thus: "Say, master, what of worth is left
In birds like this, of breast and legs bereft?"
And Landlord Porter, with uplifted eyes,
Smiles on the simple querist, and replies:
"When from a goose you've taken legs and breast,
Wipe lips, thank God, and leave the poor the rest!"

Kind friends, sweet friends, I hold it hardly fair
With that same bird your minstrel to compare,
Yet in a certain likeness we agree,
No wrong to him and no offense to me;
I take him, for the moral he has lent,
My partner—to a limited extent.

When the stern landlord whom we all obey
Has carved from life its seventh great slice away,
Is the poor fragment left in blank collapse
A pauper remnant of unvalued scraps?

I care not much what Solomon has said,
Before his time to nobler pleasures dead;
Poor man! he needed half a hundred lives
With such a babbling wilderness of wives!
But is there nothing that may well employ
Life's winter months—no sunny hour of joy?

While o'er the fields the howling tempests rage,
The prisoned linnet warbles in its cage;
When chill November through the forest blows,
The greenhouse shelters the untroubled rose,
Round the high trellis creeping tendrils twine,
And the ripe clusters fill with blameless wine;
We make the vine forget the winter's cold,
But how shall age forget its growing old?

Though doing right is better than deceit,
Time is a trickster it is fair to cheat;
The honest watches ticking in your fobs
Tell every minute how the rascal robs.
To clip his forelock and his scythe to hide,
To lay his hour-glass gently on its side,
To slip the cards he marked upon the shelf
And deal him others you have marked yourself,
If not a virtue, can not be a sin,
For the old rogue is sure at last to win.

What does he leave when life is well-nigh spent
To lap its evening in a calm content?
Art, letters, science, these at least befriend
Our day's brief remnant to its peaceful end—
Peaceful for him who shows the setting sun
A record worthy of his Lord's Well done!

When he, the Master whom I will not name,
Known to our calling, not unknown to fame,
At life's extremest verge half conscious lay,
Helpless and sightless, dying day by day,
His brain, so long with varied wisdom fraught,
Filled with the broken enginery of thought,
A flitting vision often would illumine
His darkened world, and cheer its deepening gloom,
A sunbeam struggling through the long eclipse,
And smiles of pleasure play around his lips.
He loved the art that shapes the dome and spire;
The Roman's page, the ring of Byron's lyre,
And oft when fitful memory would return
To find some fragment in her broken urn,
Would wake to life some long forgotten hour,
And lead his thought to Pisa's terraced tower,
Or trace in light before his rayless eye
The dome-crowned Pantheon printed on the sky;
Then, while the view his ravished soul absorbs
And lends a glitter to the sightless orbs,
The patient watcher feels the stillness stirred
By the faint murmur of some classic word,
Or the long roll of Harold's lofty rhyme,
"Simple, erect, severe, austere, sublime"—
Such were the dreams that soothed his couch of pain,
The sweet nepenthe of the worn-out brain.

Brothers in art, who live for others' needs
In duty's bondage, mercy's gracious deeds,
Of all who toil beneath the circling sun
Whose evening rest than yours more fairly won?
Though many a cloud your struggling morn obscures,
What sunset brings a brighter sky than yours?

I, who your labors for a while have shared,
New tasks have sought, with new companions fared,
For Nature's servant far too often seen
A loiterer by the waves of Hippocrene;
Yet round the earlier friendship twines the new,
My footsteps wander, but my heart is true,
Nor e'er forgets the living or the dead
Who trod with me the paths where science led.

How can I tell you, O my loving friends!
What light, what warmth your joyous welcome lends

To life's late hour? Alas! my song is sung,
Its fading accents falter on my tongue.
Sweet friends, if, shrinking in the banquet's blaze,
Your blushing guest must face the breath of praise,
Speak not too well of one who scarce will know
Himself transfigured in its roseate glow;
Say kindly of him what is, chiefly, true,
Remembering always he belongs to you;
Deal with him as a truant, if you will,
But claim him, keep him, call him brother still!

Bishop Clark spoke to the toast, "The Clergy," Mr. Evarts to "The Bar," Dr. Thomas to "The Medical Profession," Mr. Curtis to "Literature," and Mr. Reid to "The Press." The speeches made by all these gentlemen were exceptionally happy, and the occasion was in every way enjoyable.

At the conclusion of Mr. Reid's speech, Dr. Barker said: "We have not had time to read the letters of regret from our invited guests and subscribers, who have been prevented from being with us either by reason of death of some relative, personal illness, or other causes beyond their control. I must mention the names of Dr. S. D. Gross and Dr. William Pepper, of Philadelphia, Dr. Henry J. Bigelow, of Boston, and Dr. Willard Parker, Dr. Alonzo Clark, Dr. Austin Flint, Dr. William H. Draper, Dr. Austin Flint, Jr., and others whose names at the moment I do not recall, and Dr. John P. Gray, of Utica. I now propose as a final toast, 'Absent Friends'—those of our brethren who have not been able to join in the present happy reunion—to be drunk standing, and I shall ask Dr. W. T. Bull to lead off in singing 'Auld Lang Syne' as a response and a benediction."

THE LEGISLATURE AND THE UNITED STATES MEDICAL COLLEGE.

THE bill to legalize the incorporation of the United States Medical College, and the diplomas granted by it, by act of the Legislature, to which we referred in our issue of the 7th instant, has been so far successful as to pass the Assembly. The bill does not seem to have been scrutinized at all, but to have been passed without a single member attempting to inform himself of the propriety of such an act. The text of the bill is as follows:

"All scientific, medical, and literary colleges and universities, and all associations of five persons or more, a majority being citizens and residents of this State, which have filed their several certificates with the intention of organizing or incorporating under said acts a scientific, medical, or literary college or university, and which have reported to said regents within the two years last past, are hereby declared to be and to have been legally incorporated upon the filing of their several certificates, for the purposes set forth therein, and with all the rights, powers, and authority incident to and possessed by corporations duly organized for such purposes; and all by-laws heretofore made by such colleges, universities, or associations, all elections held and all degrees and diplomas conferred, and all the official acts and proceedings of the trustees named in such certificates and of their successors, incident to said purposes since the filing of said certificates, are hereby ratified and confirmed, and all

rights arising therefrom are hereby secured and perpetuated; and all such colleges and universities shall be subject to the same duties, liabilities, and obligations, and to the same control and visitations of said regents as colleges and universities chartered by said regents."

This bill is a pernicious one in many respects, and ought in some way to be killed. It not only attempts covertly to bolster up a miserable institution which has been a reproach and disgrace to the medical profession, but it goes to the astonishing length of actually legalizing whatever may have been done under the guise of a college by any association of five persons. It does not seem possible that it could have been understood how sweeping were the clauses of this remarkable bill. No respectable college needs the help of any such law, and none other ought to have it. Another very serious objection to the bill is, that it would practically nullify a judgment of the Supreme Court, even while that judgment stands in full force and unreversed. If injustice has been done the United States Medical College, it can be set right by an appeal from the decision; if no injustice has been done, the judgment ought to stand unaffected by any act of the Legislature. It is a vicious mode of procedure, and one calculated to bring disgrace upon the courts, to allow a judgment to be set aside by legislative power.

CLINICAL INSTRUCTION IN NEW YORK.

If it be truth, as a correspondent of a prominent British medical journal wrote a year ago, that it is possible to be graduated from a regular medical college in the United States without ever having "seen a case," it is a very exceptional truth. The real progress which has been made in medical education in America—and it can not be denied in the light of recent events that great and creditable progress has been effected—has been almost solely in the direction of clinical medicine and surgery. All medical schools which make any pretensions to excellence in teaching, and those which attract the largest bodies of medical students, emphasize the necessity and profess to have the means for clinical teaching. From this necessity for clinical material, which is now generally recognized, come the decline of the once popular and flourishing country schools and the rise of the great colleges in the leading and populous cities; and it may be safely asserted that the future of medical education belongs to the crowded cities, where wealth and poverty dwell side by side, where the poor are so poor that they are glad to accept the charity of the medical profession at the risk of personal annoyance in being used for purposes of clinical instruction, and the rich so rich that money flows without stint from full hands into the treasuries of the great medical charities.

On account of its geographical position, immense population, and great wealth, New York has become the medical as well as the commercial metropolis. Two millions and a half of human beings dwell within sight of its observatories; and how much this resident population is increased by visitors can not be readily estimated. Twenty thousand ships annually discharge their cargoes at its docks, and the crowd brought by the many railroads must swell the total by hundreds of thousands. From this contact of so many beings crowded together in a limited territory come the accidents and diseases which make medical charities among the first necessities of city life. How great this necessity is, and how generously it is responded to by the charitable, the following list of eleemosynary institutions will show. In so far as could be obtained from official sources,

the number of persons treated for sickness or injury and the amount of money expended annually in the support of this vast clinical material is stated. When not otherwise given, the reports of the year 1881 are copied from:

HOSPITAL.	Location.	Beds.	Patients.	Cost.
Bellevue.....	26th St. & East River.....	800-1,200	9,892	\$100,000
Out-door Poor Dep't.....	.....	.....	33,772	6,449
Charity.....	Blackwell's Island.....	1,000	8,028	75,000
New York.....	8 W. 16th St.....	170	2,913	82,587
Out-door Department.....	.....	.....	4,342	.....
Chambers Street.....	.....	.....	12,448	22,402
Emergency.....	223 E. 26th St.....	.....	151	with B'vue
Almshouse.....	Blackwell's Island.....	120	.....	.....
Workhouse.....	.....	56	1,315	.....
Incurable.....	.....	.....	.....	.....
Maternity.....	.....	48	455	.....
For Nervous Diseases.....	.....	40	156	.....
Infants'.....	Randall's Island.....	.....	961	.....
Children's.....	.....	.....	482	.....
Adults.....	.....	.....	6-2	.....
Idiot and Epileptic.....	.....	.....	267	.....
Hart's Island.....	.....	.....	1,061	.....
Reception.....	99th St. & 10th Av.....	22	2,784	.....
Riverside.....	Blackwell's Island.....	260	1,968	.....
Reception.....	16th St. & East River.....	30	.....	.....
Colored Home.....	.....	.....	607	.....
N. Y. State Emigrant.....	Ward's Island.....	1,200	7,406	.....
St. Luke's.....	54th St. & 5th Av.....	.....	1,665	70,239
St. Vincent's.....	195 W. 11th St.....	150	1,962	.....
St. Francis's.....	603 5th St.....	200	1,757	.....
St. Joseph's.....	.....	25	.....	.....
German.....	4th Av. & 77th St.....	100	1,244	64,641
Mount Sinai.....	Lexington Av. & 66th St.....	160	1,805	51,926
Out-door Department.....	.....	.....	30,000	.....
Roosevelt.....	59th St. & 9th Av.....	180	1,665	58,896
Presbyterian.....	70th St. & Madison Av.....	100	1,031	49,835
Woman's.....	50th St. & 4th Av.....	120	7,112	40,539
For the Ruptured and Crippled.....	135 E. 42d St.....	200	8,743	.....
Nursery and Child's.....	51st St. & Lexington Av.....	.....	2,274	119,145
St. Mary's Free, for Children.....	.....	70	190	.....
St. Elizabeth's.....	407 W. 34th St.....	65	.....	.....
Trinity Infirmary.....	325 W. 31st St.....	34	183	7,200
N. Y. Eye & Ear Infirmary.....	50 Varick St.....	.....	12,086	19,672
N. Y. Ophthalmic and Aural Institute.....	2d Av. & 13th St.....	.....	.....	.....
Manhattan Eye and Ear.....	46 E. 12th St.....	.....	5,857	.....
N. Y. Inf. for Women and Children.....	Park Av. & 41st St.....	.....	23,307	.....
Metropolitan Throat.....	.....	30	4,625	13,843
Harlem.....	314 E. 45th St.....	.....	2,400	.....
French.....	27 W. 124th St.....	22	.....	.....
DISPENSARIES.	131 W. 14th St.....	.....	.....	.....
New York.....	White & Centre Sts.....	.....	25,171	11,852
Northern.....	Christopher St. & Waverley Pl.....	.....	16,033	6,214
Eastern.....	57 Essex St.....	.....	21,632	.....
Demilt.....	2d Av. & 23d St.....	.....	19,920	14,823
Northwestern.....	9th Av. & 36th St.....	.....	25,507	6,459
German.....	65 E. 8th St.....	.....	23,637	5,114
Northeastern.....	222 E. 59th St.....	.....	22,911	3,902
Bureau of Med. and Surg. Relief.....	150th St.....	.....	1,394	.....
Harlem.....	4th Av. & 127th St.....	.....	.....	.....
Manhattan.....	129th St.....	.....	600	.....
For Sick Children.....	135 E. 48th St.....	.....	2,349	1,552
West-Side German.....	332 W. 40th St.....	.....	3,318	.....
Trinity Church.....	20 State St.....	.....	1,649	.....
N. Y. Orthopædic.....	126 E. 59th St.....	.....	1,219	16,220
Metropolitan.....	7th Av. & 30th St.....	.....	3,451	.....
N. Y. Polyclinic *.....	214 E. 34th St.....	.....	3,500	4,825

* November, 1882, to April, 1883.

The number of patients, as given in the reports of these institutions for one year (and, as the reports for 1882 are not yet published, those of 1881 are chiefly used), is 369,577. In some of the smaller charities the number of patients is not given, and, in about one half of all, the amount of money expended is not reported. There is, however, a fairly reliable basis of calculation, for in those institutions in the reports of which the number of patients and amounts of expenditure are given there is an annual outlay of \$852,386 for the medical care of 275,202 patients. This would make the yearly expenditure in the support of medical and surgical charities in New York city \$1,185,511.

Properly organized and judiciously managed, what immense benefit the medical profession might gain from the utilization of this vast clinical material! And yet what a small proportion of the large number of medical students and practitioners who visit the city have heretofore realized a satisfactory use of it. There are but about seventy annual vacancies in the resident

assistant staffs in the city hospitals, and candidates are willing to spend from six months to one year in special preparation for these positions. As to the dispensary appointments, they fall naturally to the younger members of the profession who reside and practice in the city, while the physician from a distance, equally anxious to acquire proficiency in general or special medicine, must rely upon the overcrowded clinical lectures for practical instruction.

The unsatisfactory result of this method of clinical teaching has long been recognized, and the solution of the difficulty lies, we think, in sectional clinical instruction—that is, practical lessons to small classes by experienced teachers, where each member of the class may thoroughly and personally examine and study each case at leisure, and ask questions of his instructor without embarrassment. The success of the New York Polyclinic is a practical demonstration both of the necessity felt by practitioners for more thorough clinical knowledge and of the practicability of organizing and controlling a large and select clinic by judicious management. Here there is an actual working force of fifty-three teachers and assistants, and an average of eight hundred patients are treated every month in the presence of the various sections of the class. By reason of the connection of the Polyclinic staff with other charities, and by the wise and liberal action of the governing boards of these institutions in leaving to the discretion of the medical staff the use of the material provided for by them for purposes of practical instruction, a number of the hospitals mentioned above contribute to the completeness of the organization—namely, Bellevue Hospital, Charity Hospital, Mount Sinai Hospital, the German Hospital, St. Francis's Hospital, St. Elizabeth's Hospital, the Woman's Hospital, the New York Eye and Ear Infirmary, the Manhattan Eye and Ear Hospital, the Maternity Hospital, and other hospitals and dispensaries.

Such an amount of clinical material has never heretofore been organized and concentrated here for the purpose of teaching general or special clinical medicine to practitioners, and, if the judicious management, harmonious co-operation and energy which have gained already for this new undertaking in the direction of higher medical education are continued, the success of the movement will be permanent and complete.

Proceedings of Societies.

NEW YORK SURGICAL SOCIETY.

A STATED meeting was held February 27, 1883, T. M. MARKOE, M. D., President, in the chair.

ABSCESS IN THE LOWER PART OF THE FEMUR.—Dr. F. LANGE presented a patient, twenty-eight years of age, who had bone abscess. When thirteen years of age he was subject to osteitic affection of the femur, and during the next six years suffered from repeated exacerbations of the disease. The disease commenced with very severe pain, which lasted for one year; but not until the end of two years did a sinus open, and some pieces of bone make their exit. At the end of six years, no operation ever having been performed, all the sinuses closed, and the patient remained apparently well until last August, when he again began to suffer from severe pains without apparent cause, especially at night; and when Dr. Lange saw him, in the beginning of October, he was very much reduced in strength, and presented that exhausted appearance and pale gray complexion ordinarily seen with chronic bone abscess. On examination, the femur was found very much thickened in its lower half, and

somewhat thickened higher up. There was pain upon deep pressure in the region between the middle and the lower third of the thigh. The entire history of the case made it probable that central abscess of the bone existed, and he therefore, early in October, laid bare the bone, and bored into it in two places without finding pus; but, on making a third opening, pus discharged, and he then enlarged the opening and found quite an extensive abscess, the cavity of which seemed to be very narrow and made up of several lacunæ, one of which contained a small sequestrum. About half of the femur had to be chiseled open, the thickness of the wall of the abscess reaching in some spots nearly an inch. The immediate surrounding of the pus cavity consisted of soft cancellous tissue, pervaded by granulations and small pus cavities. But over that was a very thick sclerotic bone substance. After the abscess had been evacuated and scraped out, the soft parts were closely stitched together by *étage* sutures, two bone drainage-tubes were inserted, and permanent antiseptic dressings were applied. During the next six weeks only four dressings were applied, and no accident took place, except necrosis of the superficial fascia in the upper part of the wound, and there still remained some small openings, which were simply superficial, and had no connection whatever with the cavity of the bone. The femur upon the affected side was about an inch and a third longer than the other. Furthermore, the position of the knee was that of over-extension, and at the same time there was a slight amount of mobility in the joint, greatly to the discomfort of the patient, because it caused him a feeling of uncertainty in stepping. To remedy this, to a certain extent, Dr. Lange had advised that an apparatus be worn which should fix the knee. During the past week pain had occurred again, but it differed entirely in character from that from which the patient first suffered, and was shooting up and down the anterior aspect of the thigh. This pain had been relieved by the administration of quinine, and, besides, the patient had a swollen spleen. At the time of the operation, Dr. Lange opened the cavity of the knee joint, which he found obliterated, but no unfavorable symptoms followed. An especially interesting feature in the case was the smooth healing of the bone cavity that followed complete sewing up of the soft parts, with the after-treatment adopted. The scar showed no depression, and was narrow, the greater part of the wound having healed by first intention.

OSTEOMYELITIS OF THE ILIUM.—Dr. LANGE also presented a patient, sixteen years of age, whom he saw for the first time two years ago, and four weeks after the beginning of a severe illness, with the formation of a large abscess on the anterior aspect of the iliac fossa. The hip joint was apparently not involved. He saw the patient in consultation with Dr. Hoelger, of this city, and made a number of incisions for the evacuation of pus. The case illustrated that spontaneous separation of the epiphyseal junction might occur suddenly, as in the next following weeks the patient's limb suddenly showed the deformity characteristic of fracture of the neck of the femur. A weight and pulley was then applied, and the great shortening which had occurred was, for the greater part, removed. Six months after the beginning of the abscess, Dr. Lange performed necrotomy of the ilium, and removed twelve pieces of bone, mostly superficial, some of them central, especially in the upper part of the acetabulum. The patient made a comparatively speedy recovery. The position of the limb remained unsatisfactory—namely, in very great adduction. There was not complete ankylosis. The weight and pulley was applied, and the limb brought down so that the difference in length between it and its fellow was not quite one inch, and, with a corresponding elevation of the heel of the shoe on the affected side, the patient was able to walk very well. Since that time the adduction had relapsed, and Dr.

Lange thought it would be best to let it go on, and, after complete ankylosis had taken place, to make section of the bone for the correction of the deformity. He had had three cases of acute osteomyelitis of the ilium, in two of which there was separation of the epiphyseal junction at the neck of the femur. In one case he took particular care to avoid separation by applying a weight and pulley, and yet the accident occurred.

EXTIRPATION OF THE LOWER PART OF THE RECTUM, AND ALSO THE COCCYX.—Dr. LANGE also presented a patient from whom he had removed the lower part of the rectum for cancer, and, to facilitate the operation, he had also removed the coccyx. The patient had been operated upon twice, the second time for recurring disease within the pelvis in the depth of the ischio-rectal fossa. At the present time he had several suspicious glands in the inguinal region. He presented the patient to illustrate the comparatively good functional result which followed the operation—namely, he was able to control the discharges from the bowels perfectly, if the passages were consistent. Flatus escaped, however, without the control of the patient. The first operation was performed one year ago; the second operation was performed last October. The coccyx was removed at the first operation. At the second operation he removed the mucous membrane to some extent, on account of prolapsus. The removal of the coccyx at the first operation facilitated operative measures very much. There was not much obstruction of the bowel before the first operation was performed. The patient was not aware of the existence of the disease until about six weeks previously, and yet he had extensive disease of the rectum. He had supposed that he was the subject of hæmorrhoids, and had been treated for that affection. The explanation which Dr. Lange gave of the ability of the patient to control the discharges from the bowels was that the sphincter tertius had maintained its function. It could be felt as a weak and soft, somewhat incomplete, closure, immediately above the new external opening.

Dr. L. A. STIMSON remarked that Dr. Lange's first case illustrated the importance of early attention to purulent disease within bone. He recalled a case in which he trephined the head of the tibia in a patient fourteen or fifteen years of age, who had been suffering for eighteen months with recurrent attacks of pain in the shaft of the tibia, and thickening of the upper and middle thirds of the bone had developed. He localized the seat of maximum pain and trephined at that point, and pus was found in the medullary cavity after passing through a layer of compact bone one fourth of an inch in thickness, and the operation was followed by rapid recovery, which had remained permanent to this date, nearly three years. At the time of the operation there was no sinus or discharge of pus, but the bone appeared somewhat thickened and was sensitive, and the soft parts lying over it were thickened. On reaching the bone, the periosteum was found thickened, and an abscess opened which contained from half an ounce to an ounce of pus.

Dr. POST remarked that in cases of persistent pain in the tibia, confined to a limited space, a diagnosis of abscess was a pretty safe one to make.

THE USE OF LIGATURES IN THE WOUNDS OF VEINS.—Dr. L. S. PILCHER then read the following paper:

Dr. Benjamin Travers, in his essay on "Wounds and Ligatures of Veins," which was published in 1811, seems to have been the first to draw special attention to the dangers attending injuries of veins. He speaks of the "fatal catalogue of tied veins," and says that he has observed something like that superstitious alarm which is excited by events that we do not expect and can not explain when such a catalogue is compared with the generally successful cases of tied arteries.

Mr. Travers says that it has been shown "that the inflam-

mation of the interior tunic of a vein sometimes follows a puncture, sometimes a division, a ligature encircling the tube, or including only a part of it; or arises spontaneously from an inflamed surface, of which the vein forms a part."

He ascribes to John Hunter the credit of having first distinctly pointed out the liability of the interior tunic of veins to inflammation, and exclaims that it is most extraordinary "that this alarming and often fatal inflammation of the inner coat of veins should so long have escaped the notice of the profession."

The language of Mr. Hunter (quoted by Mr. Travers from the "Medical and Chirurgical Transactions," vol. i, pp. 18, 19) is: "I have found in all violent inflammations of the cellular membrane, whether spontaneous or in consequence of accident, as in compound fracture, or of surgical operation, as in the wound of an extremity, the coats of the larger veins passing through the inflamed part become also considerably inflamed, and that their inner surfaces take on the adhesive, suppurative, and ulcerative inflammations; for in such inflammations I have found in many places of the veins adhesion, in others matter, and in others ulceration." "I have found them" (these appearances) "in the bodies of those who have died from amputations, compound fractures, and mortifications."

Mr. Travers, in this essay, remarked the indisposition to inflame manifested by the inner tunic of veins as a rule, having himself observed that, even after ligation, there was no blush upon the inner tunic, much less any sign of adhesive inflammation, or thickening of the proper coats of the vein, or agglutination of the contiguous folds (p. 201), so that the processes of healing and of division by ulceration seem to him to be conducted without any manifest sign of inflammatory action in the interior tunic. He thought, however, that this was not inconsistent with a liability to inordinate and excessive inflammation under adequate excitement.

This opinion as to the indisposition of the inner tunic to inflame has become more positively expressed by recent writers. Nicaise, in his thesis, "On Wounds and on Ligation of Veins" (Paris, 1872), p. 74, states that, though Hunter and, after him, Ribes, Gendrin, and others, considered phlebitis as an inflammation of the internal tunic, numerous observations since their time have demonstrated that primary inflammation of that membrane is very rare, if, indeed, it exists. He does not enter into any discussion of the subject, but contents himself with saying that most frequently inflammation begins in the cellular tunic, and thence may spread to the middle and involve also the internal tunic. He quotes Trousseau and Rigot (from the "Arch. gén. de méd.," 1827), as saying that "every year we see patients succumb to phlebitis supervening upon phlebotomy. We are far from denying the frequency of the accidents which follow bleeding; but too often there has been taken for an inflammation of the vein what was only inflammation of its cellular sheath," a kind of periphlebitis being the real malady. Still more positively does Mr. Callender, in the article on diseases of veins, in Holmes's "System of Surgery," claim that primary inflammation of the inner tunic of veins is never met with, and that in all cases we have to do with either progressive coagulation of blood within veins, and its sequelæ, or with diffuse phlegmonous inflammation of their connective-tissue sheaths, thromballosis and periphlebitis being thus substituted in surgical nomenclature for phlebitis. Diffuse periphlebitis, according to this author, can not occur in a patient in a fair condition of health, and, when it does occur, after puncture or division of a vein, it is not a consequence of the application of a ligature; for, whether the vessel be tied or not, this inflammation may supervene.

The change of views which appears, from these brief historical references, to have taken place as to the liabilities to

inflammation inherent in veins has been attended with corresponding changes in the character of the surgical interference to which they are subjected. To a period during which there was entire absence of apprehension of danger, so that, to use the language of Travers, they were attacked with singular rudeness—pricking, cutting, tying, and burning them, without ever adverting to any other than the mechanical effects of such operations upon the diseases for which they were instituted—there succeeded years during which they came to be considered as especially intolerant of interference and prone to the development of unexpected and uncontrollable complications. To this has now succeeded another period in which any special vulnerability in veins is not admitted and a tendency to return to unrestricted attacks is manifest.

For the purpose of eliciting the experience and opinions of the surgeons of to-day on the important question of the hazards of surgical interference with veins, I took up, one year ago, in a paper which I read before the Philadelphia County Medical Society, the subject of the ligature of large venous trunks. It will be remembered that Dr. S. W. Gross, of Philadelphia, in a paper published by him in the "American Journal of the Medical Sciences," in 1867, upon "Wounds of the Internal Jugular Vein and their Treatment," reached the conclusion that the dangers of ligation of that vessel had been greatly exaggerated, as not a single example had been found by him in which ligation had been followed by diffused phlebitis. Embodied in that paper was also a summary of the teachings of prominent surgical authors of the present century up to that date as to venous ligation in general, from which it appears that while a numerical majority teach that its risks have been greatly exaggerated, yet a sufficiently large number, including the names of Roux, Lisfranc, Langenbeck, Miller, Erichsen, and Pirogoff speak of it as being attended with great danger, and to be avoided by all possible means.

I called attention, also, to the additional source of danger which had been claimed to exist in the denudation and contusion of veins. Dr. Gross, in his paper, had quoted the observations of Broca, who, in his treatise on aneurysms ("Des anévrysmes et de leur traitement," p. 478, Paris, 1856), describes inflammation of the accompanying vein, denuded, perhaps bruised in exposing an artery for the purposes of ligation, as one of the possible complications of such operations; also, two cases reported by Langenbeck (in "Archiv für klinische Chirurgie," 1860, t. i), with a fatal result in one of the cases, in which thrombosis followed, a denudation of veins occurring in the course of the removal of tumors; also observations of a similar nature by Post and J. C. Warren.

Nicaise, in his thesis already referred to, quotes these observations also, and adds that Ollier, of Lyons, has several times observed this accident, so that he has formed the opinion that extensive denudation of a large vein is more dangerous than ligation, and that, where after such denudation immediate union is not obtained, when the flaps that cover the veins slough, when, in a word, the veins remain exposed at the bottom of the wound, all the accidents of an extensive and progressive thrombosis are likely to occur. In three instances Ollier had seen death follow in from eighteen to thirty-six hours after the beginning of the thrombosis. Happily, however, says Nicaise, denudation does not inevitably involve accidents so grave as those noted by Ollier. Most frequently it is followed by no complication. Nicaise also quotes the opinion of Weber (Pitha und Billroth, "Handbuch der allgemeinen und speciellen Chirurgie"), that contusions of veins are more likely to be followed by thrombosis and suppurative periphlebitis than are pricks and lateral wounds.

(To be concluded.)

Reports on the Progress of Medicine.

QUARTERLY REPORT ON OBSTETRICS AND GYNÆCOLOGY.

No. XXIV.

By ANDREW F. CURRIER, M.D.

THE CÆSAREAN OPERATION.—Beumer ("Arch. f. Gynäk.," xx, 2, 1882) describes an operation performed upon a woman, forty-one years of age, who had enjoyed good health during the most of her life, had borne five children without mishap, and was now pregnant for the sixth time. As the time for labor approached, the midwife who was summoned advised professional assistance, and she was sent to the obstetrical polyclinic at Greifswald, where she came under the observation of the author. The bladder was first evacuated of twenty-five hundred grams of urine. Examination then revealed that the foetal heart sounds were distinguishable, and that the head was presenting. The lengthened vaginal portion of the cervix was drawn well up, behind the symphysis; the os externum was patent; the cervical canal, eight to ten centimetres in length, could be traversed by the finger with difficulty. Through the anterior vaginal wall no presenting foetal part could be felt. Through the posterior wall a tumor about as large as a child's head could be made out, lying well in the superior strait, with barely sufficient space between it and the cervix to pass the fingers. Posteriorly, the fingers could not be passed to the promontory. The tumor seemed to be firmly fixed. The diagnosis was made of an intra-uterine pregnancy at the end of the ninth month, with a fibromyomatous tumor of the posterior wall of the cervix which entirely prevented labor. The case was further complicated by cystitis and suppurative pyelonephritis. Cæsarean section was decided upon, and carried out with strict antiseptic precautions. The abdominal incision was made in the linea alba from a point two centimetres above the navel, passing to the left of the same, and ending at a point four centimetres above the symphysis. The peritoneal section extended as far as the vertex of the bladder. A solid rubber tube of the thickness of the little finger was then passed around the lower segment of the uterus, the intention being to constrict the uterine walls with it as soon as the cavity was opened. The uterus was then opened in its middle line by an incision, eleven centimetres in length, which extended almost to the upper boundary of the lower uterine segment. At the upper end of the incision the placenta was cut, but hæmorrhage was almost immediately stopped by tightening the rubber tube referred to. A living and active female child was quickly extracted by the feet, and the cord was cut and secured. The membranes and the placenta were also removed successfully, and the uterine cavity was then carefully sponged out with a five-per-cent. carbolic solution. The peritonæum was then peeled away from both edges of the wound for a distance of one centimetre, and a wedge-shaped segment of muscular tissue was excised. This permitted the turning in of the excess of peritonæum, which was one centimetre in width. The wedge of muscular tissue removed had its base outward—that is, next the peritonæum; consequently the edges of the wound lay, as to their smaller, external portions, with a peritoneal covering, while within, their larger inner portions were composed of the muscular structure of the uterus. The uterine wound was closed with seven deeply passed sutures, made from English fish-line, which had previously been boiled in a five-per-cent. solution of carbolic acid. The decidua was not included in the suturing. Four superficial sutures were also passed, after which the tube around the uterus was removed. No hæmorrhage followed, and these steps had taken only twenty

minutes. In the *toilette* of the peritoneal cavity a sponge accidentally slipped from the sponge-holder and could not be found until the intestines were removed, when it was discovered in Douglas's pouch. From this point the patient did poorly, though, before the manipulation of the intestines, everything promised favorably. The abdominal wound was hastily closed, and nearly an hour was spent in efforts, which were finally successful, to restore the pulse and breathing to their proper condition. The patient lived only about thirty-six hours after the operation. In defense of his course in adopting the Cæsarean section in preference to Porro's operation, the author states that the existence of the large fibroid, which has been already referred to, would have prevented the obtaining a suitable pedicle, and hence the operation (Porro's) could not have been performed. The indications for Porro's operation are the following: 1. Stenosis or atresia of the cervix and vagina, or interference with the parturient canal by a tumor which does not belong to the uterus itself. 2. Pregnancy in the closed half of a bicornate uterus. 3. Infection of the body of the uterus under certain conditions. 4. Cases in which Cæsarean section has been repeatedly performed. 5. Marked general osteomalacia. The autopsy revealed the beginning of peritonitis, but nothing else that was attributable to the operation.

THE TREATMENT OF FUNICULAR HERNIA.—Krukenberg (*ibid.*) remarks that the treatment of this accident has not usually been attended with great success. A few cases have been cured spontaneously, a few others have yielded to varying degrees of pressure. Various kinds of operative procedures have been adopted at different times. They are very likely to prove fatal, and are strongly disapproved of by numerous authorities, which are quoted. Kocher, B. Schmidt, and König advise against operation, excepting in cases where there are symptoms of strangulation. In cases of extensive but still reducible hernia, neither reposition and compression, nor yet the modified ligature (that is, a ligature passed around the base of the sac after the hernia has been reduced, or the use of pins or sutures to bring together the divided abdominal walls), will satisfy the demands of modern surgery. The plan which the author adopted in a case which was under his supervision consisted in reposition, opening of the hernial sac, removal of the same, freshening of the edges of the wound, and careful suture of the same with ten silk sutures, in the same manner which is customary in ovariectomy. All was done with strict antiseptic precautions, and the child made a good recovery, though it had been born but fourteen hours at the time the operation was performed. The author seems to think favorably of operative procedures.

THE CAUSE OF HEAD PRESENTATIONS.—Meeh (*ibid.*) remarks that, according to the view which is as old as the time of Hippocrates, the breech of the fœtus lies lowest in the uterus until the seventh month, when the body is rotated and the head takes that position. This view was disputed in 1559 by Columbus, who held that the head of the fœtus was in the pelvic cavity from the beginning. Three hypotheses have been assumed as the cause of the frequency of head presentations: 1. That the force of gravity is the cause. This was assailed by Paul Dubois and by Simpson. 2. The one which was advanced by Simpson, viz., that the cause lies in a kind of reflex movements on the part of the fœtus, which are induced by the pressure of the walls of the uterus upon it, until that position is assumed which corresponds most nearly to the shape of the uterine cavity. 3. Kristeller considered (1855) that the cause lay in the activity of the uterus during pregnancy. Each of these theories has its advocates and its opponents, but they are all unsatisfactory, in that they attempt to explain only the change from a breech to a head position, while for the reverse of this, which is of common occurrence, no explanation is attempted. The author next lays down

the principle that the frequency of a fœtal position can best be explained in connection with a satisfactory knowledge of the causes by virtue of which it changes its position. That fœtal movements are common and frequent is well enough known. They have been carefully studied by Hecker and by Credé, and the results have been published. The muscular organism with which the fœtus is furnished, which is highly developed toward the close of pregnancy, when these movements occur, is a sufficient explanation of their occurrence. The four extremities of the fœtus are chiefly concerned in its motions, and it is their action which determines the position of the trunk, while the position of the trunk really determines that of the head. The extension of the limbs is far more significant than their flexion as to the movements of the fœtus. When one of them is extended, there is either a relaxation on the part of the uterine wall which was touched by it, or that portion of the fœtus which is contiguous to the extremity (shoulder or pelvis) changes position. Should neither the uterine wall nor the fœtus itself relax, the result would simply be contact of the latter with the former. The parts of the uterus where motion most readily takes place are at the fundus and the sides. The resisting nature of the parts in the region of the superior strait of the pelvis and the sacrum readily show that the vertical position, whether with the head or the breech in advance, favors stability when the limbs are extended more than does either a transverse or an oblique position. When the breech is in advance, it is not difficult to see that when the lower limbs are extended its position is likely to be changed. When the head is in advance, motion of extension on the part of the lower limbs results in contact with the soft tissues of the fundus uteri, above and around which are other soft tissues. Extension of the upper limbs acts upon the parts of the uterus which are above the pelvis. The position of the shoulders may be changed thereby, but the head, which is the end of the longest fœtal diameter, is not apt to have its position disturbed, the upper extremities acting rather upon the parts toward the middle of the body than upon the head. Of course, the position is the more stable the farther the head has passed into the entrance to the pelvis. The limbs are usually directed toward the side-walls of the uterus, which are more yielding than the front. Also, there is less resistance upon the right side than there is upon the left, where the descending colon and its contents are located. This accounts for the greater frequency of the first position, whether it be of the head or of the breech, and, indeed, the same holds true for the transverse position. During labor, the extension of the limbs exerts by no means so significant an influence upon the relations of position of the fœtus as during pregnancy.

THE SHARP CURETTE IN OBSTETRICS.—Concerning the use of the sharp spoon in obstetric practice, says Von Weckbecker-Sternefeld (*ibid.*), the hæmorrhages and degenerative changes which follow some cases of midwifery require energetic treatment, not only on account of the immediate danger to life, but also on account of the protracted bodily weakness which is entailed by them. [Reference is here made, of course, to the remnant of the products of conception, either in the shape of membranes or placenta, which nature has failed to expel at the time of labor, whether at full term or premature.] For accomplishing this end, either the hand or the finger has been deemed a sufficient means by most writers. The author desires to advocate the use of Simon's sharp spoon for this purpose, and claims as its advantages: 1. A lesser degree of danger of infection from its use than by the use of the finger. 2. The minimum of dilatation is required for its use. 3. The substances which are to be removed can be removed thoroughly with the spoon. 4. Far less pain is produced. 5. Severe irritation of and powerful traction upon the uterus and the entire genital tract are avoided.

The following indications for the use of the sharp spoon are given: 1. In premature parturition during the period encompassed by the first three months of pregnancy, when there is retention of the entire product of conception with hæmorrhages or other serious disturbances, the fœtus and secundines being firmly adherent to the uterus; or when the fœtus and secundines have been released from their uterine attachment, but there is not sufficient dilatation to permit of their expulsion unaided; or when the fœtus has been expelled, but the secundines or a portion of them remains—in all these cases the offending substances must be removed quite as much on account of any trouble which they may cause as for any trouble which they have caused. 2. The retention of portions of the placenta after the delivery of a premature or a full-term fœtus. In such cases we not only are likely to have severe hæmorrhages soon after labor, but also the dangerous forms of puerperal diseases. The use of the sharp spoon is in these instances productive of most positive and satisfactory results. 3. The paring off of the inner surface of the uterus will prove a powerful and harmless irritant, in connection with other agencies, such as the use of ice, in cases of post-partum atony of the uterus, and is worthy of more extensive trial. 4. During the puerperium the spoon may be employed for the removal of clots which have collected in the uterus, together with other débris, being used as an adjunct to irrigations of the uterus, and also for the removal of polypoid growths at the placental site. 5. Such growths as *mola carnososa* and *hydatidosa* may also be removed with this instrument. In manipulating the instrument, care must be taken to avoid wounding tissues contiguous to those which are to be removed. Especially must caution be exercised in cases where the uterus is fixed by adhesions. The author thinks it better to perform the operation without an anæsthetic, where this is possible. A table of one hundred cases is given, in which the patients embodied the different conditions which have been referred to as indications for the use of the spoon, and in which, in fact, it was used. [Fewer cases of inflammation followed the operation than we should have anticipated from such treatment.] Only five cases ended fatally, and the author thinks that in only one of these can the issue be attributed to the use of the spoon. The author thinks that the instrument will also be serviceable in some of the destructive operations of midwifery, in which it is desirable to penetrate the foetal body, as in cases of deformity with enlargement of some portion of the body. [If we were to criticise the author's statements, we should begin by expressing doubt as to the propriety of using a sharp spoon or curette in any of the conditions which he has mentioned, the dull wire curette being certainly safer and quite as effective. The paring away of a portion of the uterine mucous membrane (if that is what the author means) would seem to be particularly dangerous, and, in all cases where the spoon is used, a free absorbing surface, with its attendant dangers during the process of uterine involution, will be left.]

THE ÆTIOLOGY OF INVERSION OF THE UTERUS.—Fürst (*ibid.*, xx, 3) thinks that the important question, in a medico-legal point of view, in regard to the possibility of a spontaneous origin of inversion of the uterus has been answered in different ways, so that it can not be definitely stated how frequently this form occurs in comparison with that which is produced by the action of external force. Too little consideration has been paid to the fact that complete atony, at least of a portion of the uterus, is the chief condition upon which inversion is based, and, this being present, only a slight exercise of force, as by the action of the abdominal bandage, with certain voluntary or involuntary movements added, will result in the accident referred to. The literature of this subject is quite meager, as the accident is comparatively rare. A case which occurred in the au-

thor's experience is narrated, the inversion occurring spontaneously soon after delivery and requiring much effort to accomplish its restoration, which was finally done. The patient was greatly prostrated from loss of blood and of nerve power, but made a good recovery. The patient was a primipara, and the author thinks the accident occurs oftener among primiparae than is generally supposed. The following statements are made concerning this accident: 1. After a protracted labor, which is the more common in primiparae, weakness of the pains may be a cause of inversion, and, if a delivery has been accomplished with the forceps, the liability to the accident is increased. 2. A placenta whose site is at the fundus is a predisposing cause, and occurs more frequently in primiparae, just as placenta prævia is more common among multiparae. 3. The comparatively tense vaginal walls in primiparae hinder inversion, and, if the accident occurs, this condition may assist spontaneous reduction. 4. The narrower vulva in primiparae may prevent the free discharge of blood. With the accumulation of the latter and subsequent pouring out, a force may be exerted which will produce inversion. Pathological growths upon the placenta, adhesions of this organ to the uterus, and adhesion of the membranes, may also act as sufficient causes to produce this accident.

ENDOMETRITIS FUNGOSA.—Under the general name of endometritis fungosa, says Brennecke (*ibid.*), one is accustomed to include a series of morbid phenomena which differ greatly among themselves etiologically and anatomically, but clinically are quite similar. The chief symptom is profuse and continued hæmorrhage, which is naturally followed by decided anæmia. The cervical canal is usually patulous, and upon the mucous membrane of the body of the uterus are new growths, which are not apt to be very large. When these have been removed with the curette, the hæmorrhages cease for a time, or perhaps permanently. Olshausen's brochure, "concerning chronic hyperplastic endometritis of the corpus uteri (endometritis fungosa)," appeared in the year 1875, arranging and explaining the different opinions in regard to this subject. A few years later, Bischoff, re-enforced by clinical and microscopical observations, arranged endometritis fungosa into four anatomically distinct forms, though they have points in common, and can not always be separated. These four forms are, in brief: 1. Fungosities developed from cedematous normal tissue, and peculiar granulation tissue which is very vascular. 2. Those which follow abortion, especially when a portion of the placenta or the membranes have been retained. 3. Diffuse adenoma, which is common among multiparae. 4. Diffuse sarcoma. In the first two forms a thorough curetting is likely to produce a radical cure, in the others the disease often recurs. K. Ruge divides the disease into a glandular and an interstitial form, and believes that there is also a form intermediate between these two. An extended description of six cases of the disease (endometritis fungosa) led the author to the conclusion that the primary source, at least in his cases of the disturbance, consisted in functional derangement of the ovaries, probably with reference to ovulation. His opinion in the matter is summarized as follows: Chronic hyperplastic endometritis is to be considered a true hyperplasia of the uterine mucous membrane. It comes on in consequence of a chronic hyperæmia of the uterine mucous membrane, which is due to the abnormal irritation which is sustained by the nervous reflex apparatus governing the menstrual congestion in the ovaries, these organs being changed either physiologically or pathologically, and, therefore, performing their functions in an abnormal manner. The disease will cease when normal ovulation recurs, this being attended by normal menstrual congestion with physiological regularity. When ovulation ceases, the disease will likewise cease, but it must be remembered that ovulation sometimes continues long after menstruation has failed to

reappear. The author does not think that the disease is likely to develop into carcinoma. In cases where repeated curettings have failed to effect a cure, Battey's operation is indicated. In addition to those cases whose origin is ovarian, there are others in which the fungous growths are entirely of a uterine nature, in which catarrhal inflammation of the uterine mucous membrane is the source of the trouble. The following observations will serve as a means for differential diagnosis: 1. In the uterine form of the disease there occur profuse menorrhagia and chronic metrorrhagia, but never an abnormally delayed menopause, while in the ovarian form the abnormally delayed menopause is almost pathognomonic. 2. The tendency to recurrence is far greater in the ovarian form. 3. In the uterine form the mucous membrane has fewer fungosities than in the ovarian form. 4. Microscopically, the tissue removed consists of simple hyperplasia of the mucous membrane, or granulation tissue with more or less of normal mucous membrane, and in both varieties this result is obtained.

[Lack of space prevents the publication of the bibliographical list appended to Dr. Currier's Report.—EDITOR.]

Letters to the Editor.

NOTE ON CHLORAL HYDRATE AS A VESICANT.

St. Louis, April 7, 1883.

To the Editor of the *New York Medical Journal*:

SIR: A note by Dr. F. D. Ritter, of Gainesville, Pa., to Dr. T. G. Thomas, in a late number of your valuable journal, commendatory of chloral hydrate as a vesicant, prompts me to remark that this agent is such a violent and excruciatingly painfully vesicant as to render it unfit for use in ordinarily sensitive conditions. In 1877 my assistant physician at the Missouri State Lunatic Asylum, Dr. William Wood, employed chloral hydrate externally for the relief of intercostal neuralgia in his own person, and the effect of the application was to produce the most intense agony. He never wished to try the experiment again, nor have I ever since felt inclined to see it tried on any other person. I relieved Dr. Wood of his chloral agony by repeated applications of wet towels, followed by lard spread on cotton batting.

Dr. Wood's neuralgia was speedily relieved by the chloral, but the systemic shock of the application was too severe to justify the use of the remedy, and would have been greater but for the prompt employment of the wet towels.

There might arise circumstances which would justify the use of this severe remedy where reaction to ordinary counter-irritation might be doubtful, but for ordinary vesicant indications and purposes the employment of chloral hydrate would be positively cruel, and not at all in accordance with the golden rule. Respectfully,

C. H. HUGHES.

THE OLD CODE OF ETHICS.

NEW YORK, April 9, 1883.

To the Editor of the *New York Medical Journal*:

SIR: The following is a copy of a letter recently addressed by me to a partisan of the old code. Thinking that it may apply to others holding views like his, I should be glad of the publicity of your columns:

"The profession may not, indeed, care to know what views either you or myself may entertain on most subjects, but, inasmuch as many of them are just now making up their minds on the question of medical ethics, our views may not be without interest to them, as we are in certain ways representative of views held on either side of the controversy. Since our conversation the other day, I have thought over several of your statements with increasing interest, because I am an advocate of the greatest freedom in all of the affairs of men, while I

believe you to be the advocate of the more intolerant measures of the past.

"Before presenting your views on the ethical question to the reader, I need scarcely remind you that I said I was an advocate of reform as regards the old codes of ethics; that I believed they required important changes to adapt them to the wants of physicians of the present day, however patiently they may have been endured by physicians in the past. That I was not satisfied with the new code, was admitted, but I greatly preferred it to the old one.

"I was led to believe by your remarks that you (the old-coders) were organizing at the present time with the intention of re-establishing the old order of things in this State, and that, if you were unsuccessful in repealing the new code at the next meeting of the Medical Society of the State of New York, you intended to set up a new State society which would be recognized by the American Medical Association. You would thus not hesitate to commit an act of secession against the legalized authorities of your own State in furtherance of these objects. You were uncompromisingly determined that the old-code ultimatum should be the entire abandonment of their advanced position by the new-code men. Were you unsuccessful in persuading the reformers of the evil of their ways, you propose to excommunicate them—to proscribe them—to ostracize them. You said that you (old-coders) would now avoid professional intercourse with the reformers—would not willingly consult with them, etc.

"We agreed respecting the scientific qualifications that a physician should possess, and that they should all be accorded the widest freedom as regards therapeutical methods. The point at which we diverged is, perhaps, the real question at issue, namely, the *business of earnings*. This matter you (old-coders) would regulate for all; you would not have the doctor's success depend upon his adaptability to his social surroundings, but you would establish trades-union methods, thus holding physicians together by fee bills and rules of conduct, or manners. Let me ask you why a physician should not earn his living as do men in other pursuits? Why should not the public, rather than his colleagues, be arbiters of his success? You lay down rules for his guidance such as persons in no other pursuit could or would submit to and yet attain success.

"These are the patriarchal methods of the olden times, established by the fathers in medicine; they were well adapted to ancient times, when the master imparted the secret knowledge of his own ways to the apprentice, but in these modern days instruction in medicine and the collateral branches is offered to all who have the means to avail themselves of such opportunities; and, moreover, there are no longer any secrets in the healing art, the bestowal of which might intrall the recipient indefinitely. Will not the question of manners in the present state of society settle itself for physicians, as it has already done in other walks of life? Can not a gentleman retain his gentle manners as a physician without the restraining influences of a code—and, by the by, will any code make a rude person well-mannered? It seems to me that the desire on the one hand to enforce a rejected and obnoxious code upon all alike is about as inconsistent as the talk of others who fancy that, because a gentleman requires no code by which to regulate his conduct, all may become gentlemen through the removal of restraining influences. The mistake of both extremists seems to lie in the fact that neither recognize the true state of things—namely, that public recognition must depend on acquirements suited to the public's demands. Dr. Flint is not the admirable gentleman in consultation that many of us have found him to be, because of the code which has of late elicited his good-natured commentaries in the '*New York Medical Journal*.' These pleasing essays on professional etiquette are highly creditable to his goodness, but they certainly can not seriously be expected to prevent the violation of the code if restored again; nor does the doctor, I fancy, insist on the strict rules of politeness that he has laid down being accepted by those with whom he consults, for he probably adapts himself to the circumstances, and his well known success must largely depend on the agreeable manner in which this is done. Now, the general practitioner finds it to his interest to adapt himself to the social conditions that surround him, without respect to codes, and, if the consultant does not like his methods, he is not obliged to meet him in consultation.

"Is it not to be plainly seen that this question is now settling itself—at least, is it not so here in the metropolis, and also in the State of New York? Is it not better that practices which have generally been successfully carried on surreptitiously should be openly acknowledged or promptly condemned? Are not the codes which we have hitherto permitted to remain in force ineffective to control men, and, therefore, liable to be regarded as better suited to the convenience of the more daring and insincere constructionist than for the advancement of the tyro, who is disingenuously required to pursue the noble art handicapped, as was the ignominious constructor of brick when required to labor without an adequate supply of straw?"

"Those of us who have established our professional reputation need not, perhaps, concern ourselves about these ethical disturbances, which are, after all, made much more prominent than needs be. But one particular act of yours as representing old-code ideas gives cause for apprehension to every young practitioner in the land; I refer to your course in respect to a medical journal, where you ceased to be a subscriber because the editor held views differing from your own on the ethical question. It will not be disputed by any one that you have a right to select whatever medical literature you may require, but you intended in this instance to punish the opponent who had incurred your displeasure. Your bigotry was thus sustained even at the possible sacrifice of your intelligence. But this is a mere bagatelle to your threatened crusade against the reformer, whom you propose to ostracize should he not return to the old paths you are holding for him.

"Entertaining these views, should the defenders of the old *régime* even attain ethical ascendancy, I fear your zeal would know no bounds, but that you would strike at every phase of liberty; you might, I doubt not, consider it heresy for others to wear their garments of a cut not meeting with your approval.

"You frankly admitted that you (old-coders) intended to follow out the methods referred to, even if your action should bring about a division among physicians; that you considered this course both necessary and wise, and that you were, for one, willing to devote both time and money to the cause.

"Now, before nailing your flag of disruption to the mast-head and further proclaiming your anathemas, would it not be well to consider once again the consequences of so foolish a course, and, before it is too late, aid in bringing about a conference among those interested, with a view to securing statutory laws, where any are needed, respecting the intellectual status of physicians of all schools, and leave the matter of ethics to take care of itself?"

SAMUEL SEXTON.

Miscellany.

THE DOCTOR OF THE LAST CENTURY.—In Mr. John B. McMaster's "History of the People of the United States," vol. i, just published by D. Appleton & Co., we find the following account of medical study and practice toward the close of the last century:

"Not less important than the school-master, in the opinion of his townsmen, was the doctor. With the exception of the minister and the judge, he was the most important personage in the district. His professional education would now be thought insufficient to admit him to practice; for there were then but two medical schools in the country, nor were they, by reason of the expense and dangers of traveling, by any means well attended. In general, the medical education of a doctor was such as he could pick up while serving an apprenticeship to some noted practitioner in Boston or New York, during which he combined the duties of a student with many of the menial offices of a servant. He ground the powders, mixed the pills, rode with the doctor on his rounds, held the basin when the patient was bled, helped to adjust plasters, to sew wounds, and ran with vials of medicine from one end of the town to the other. In the moments snatched from duties such as these he swept out the office, cleaned the bottles and jars, wired skeletons, tended the night-bell, and, when a feast was given, stood in the hall to announce the guests.

"It was a white day with such a young man when he enjoyed the

rare good fortune of dissecting a half-putrid arm, or examining a human heart and lungs. So great, indeed, was the difficulty of procuring anatomical subjects, that, even at the medical school which had just been started at Harvard College, a single body was made to do duty for a whole year's course of lectures. It was only by filching from grave-yards or begging the dead bodies of criminals from the Governor that subjects could be obtained.

"Under such circumstances, the doctor's knowledge was derived from personal experience rather than from books, and the amount so obtained bore a direct relation to the sharpness of his powers of observation and the strength of his memory. If he were gifted with a keen observation, a logical mind, and a retentive memory, such a system of education was of the utmost value. For in medicine, as in mechanics, as in engineering, as in every science, in short, where experience and practical skill are of the highest importance, a practical education is most essential. The surgeon who has studied anatomy from a book without ever having dissected a human body, the physician who learns the names and symptoms of diseases from a work on pathology, and the remedies from the *materia medica*, without ever having seen the maladies in active operation and the remedies actually applied, is in a fair way to kill far more patients than he will ever cure. But the value of knowledge obtainable from books alone is on that account not the less useful, and by no means to be despised. The student who has read much in his profession is in possession of the results of many centuries of experience derived from the labors of many thousands of men. He is saved from innumerable blunders. He is enabled to begin his career with a knowledge of things which, if left to his own experience to find out, would cost him years of patient waiting and careful observation. The advantages of such a system of study were, however, but sparingly enjoyed by the medical students of the last century, when but few physicians boasted a medical library of fifty volumes.

"His apprenticeship ended, the half-educated lad returned to his native town to assume the practice and to follow in the footsteps of his father. There as years went by he grew in popularity and wealth. His genial face, his engaging manners, his hearty laugh, the twinkle with which he inquired of the blacksmith when the next boy was expected, the sincerity with which he asked after the health of the carpenter's daughter, the interest he took in the family of the poorest laborer, the good nature with which he stopped to chat with the farmhands about the prospect of the corn-crop and the turnip-crop, made him the favorite of the county for miles around. When he rode out, he knew the names and personal history of the occupants of every house he passed. The farmers' lads pulled off their hats, and the girls dropped courtesies to him. Sunshine and rain, daylight and darkness, were alike to him. He would ride ten miles on the darkest night, over the worst of roads, in a pelting storm, to administer a dose of calomel to an old woman, or to attend a child in a fit. He was present at every birth; he attended every burial; he sat with the minister at every death-bed, and put his name with the lawyer to every will.

"But a few of the simplest drugs were then to be found stowed away on the shelves of the village store, among heaps of shoes, Rohan hats, balls of twine, packages of seed, and fitches of bacon. The physician was, therefore, compelled to combine the duties both of the doctor and the apothecary. He pounded his own drugs, made his own tinctures, prepared his own infusions, and put up his own prescriptions. His saddle-bag was the only drug-store within forty miles, and there, beside his horn balances and his china mortar, were medicines now gone quite out of fashion, or at most but rarely used. Homeopathy, with its tasteless mixtures and diminutive doses, was unknown, and it is not too much to say that more medicine was then taken every year by the well than is now taken in the same space of time by the sick. Each spring the blood must be purified, the bowels must be purged, the kidneys must be excited, the bile must be moved, and large doses of senna and manna, and loathsome concoctions of rhubarb and molasses, were taken daily. In a thousand ways the practice of medicine has changed since that day, and changed for the better. Remedies now in the medicine-box of every farmer were then utterly unknown. Water was denied the patient tormented with fever, and in its stead he was given small quantities of clam-juice. Mercurial compounds were taken till the lips turned blue and the gums fell away from the teeth. The damsel who fainted was bled pro-

fusely. Cupping and leeching were freely prescribed. The alkaloid quinia was unknown till 1820. The only cure for malarial diseases was powdered cinchona bark; but the amount required to restore the patient was so great, and the supply so small, that the remedy was all but useless. Vaccination was not made known by Jenner till 1798. Inoculation was still held by many to be attended by divine punishment. Small-pox was almost as prevalent as pneumonia now is. The discovery of anæsthesia by the inhalation of ether or chloroform was not given to the world by Morton till 1846. Not one of the many remedies which assuage pain, which destroy disease, which hold in check the most loathsome maladies and the most violent epidemics, was in use. Every few years during the dog-days the yellow fever raged with more violence in the northern cities than it has ever done in this generation in the cities of the far South. Whole streets were depopulated. Every night the dead-cart shot its scores of corpses into the pits of the Potter's Field. Better surgery is now generously given to every laborer injured by the fall of a scaffold than could then have been purchased at any price."

THE MERCANTILE MARINE MEDICAL SERVICE.—As a remedy for the unsatisfactory state of affairs connected with the medical service on board passenger vessels, the Parliamentary Bills Committee of the British Medical Association has addressed a memorial to the President of the British Board of Trade, proposing:

1. That the Board of Trade should obtain powers to take this important branch of the public service under its own immediate direction.
2. That a regularly constituted "Marine Medical Service" should be formed, the members of which would be appointed under the direct supervision of the Board, and would be responsible to it for the efficient performance of their duties.
3. That the conditions of such appointment should be reasonably stringent, in view of the serious and difficult nature of the service required.
4. That the present disabilities with reference to unsuitable accommodation, want of assistance, and inadequate remuneration, should be amended under the direction of the Board; and that the position should be made sufficiently desirable to attract and retain the services of thoroughly competent and experienced medical men.
5. That the duties, responsibilities, status, and uniform of marine medical officers should be distinctly determined, and made constant upon vessels carrying passengers under the supervision of the Board of Trade.
6. That the medical officer should have separate authority in sanitary matters, not involving the safety or general discipline of the ship.
7. That he should be assured of the full protection of the Board in the discharge of his duties, and in all cases of vexatious interference, or unfounded complaint.
8. That his tenure of office should be as permanent as in other public services, and not simply from voyage to voyage, as at present.
9. That the conditions of the service should include promotion, and provision for superannuation or retirement through ill-health.
10. That a junior or assistant surgeon should be carried by every vessel having on board more than six hundred persons; and that suitable arrangements should be made for his accommodation and remuneration.
11. That the medical officers should be required to frequently inspect the inhabited portions of the vessel, and to furnish at the conclusion of each voyage a suitable report upon the hygienic conditions of the voyage, and upon all matters likely to affect the health of the passengers. [Such reports, taken collectively, the committee remark, would be of great value to the public service.]

THE LEGAL STATUS OF UNQUALIFIED PRACTITIONERS.—The courts of the various States differ in their decisions as to the right of a physician to recover for the value of his services when he is not a graduate of a medical college. In Maine, where such a person can not sue his patient, the curious question recently arose in a court, whether a physician who had been injured in an accident by the gross negligence of a third party could allege, as an element of damage, the loss to his practice by his enforced idleness. The defendant maintained that the phy-

sician, not being a graduate of a medical college, could not recover for the value of his services, and, consequently, could not set up any loss of time, etc., in the action for negligence. The court, however, decided that such loss of time, etc., must be considered in giving a verdict, as by the Maine law, though the physician had not received a degree or license, still he was not pursuing a business in violation of law. In New York, where it is against the law for a person to practice medicine without a diploma granted by a medical college, such a person can, nevertheless, recover for his services, if a jury believes them to have been of any value, the penalty for practicing in an irregular manner being fine and imprisonment, and not an inability to sue for services. It would seem, therefore, that where the facts were similar to those in the Maine case a person in this State could recover for an injury, although the ground of recovery would be different in the two States.

CREMATION IN PENNSYLVANIA.—An act has been introduced into the Pennsylvania Legislature to prevent the burning or cremation of human bodies after death. The ground, as stated by the introducer of the bill, is that such bodies are generally imported from other States for cremation, and the practice is contrary to the instincts of humanity and to the Christian civilization of the age, and abhorrent to the masses of the people of the State. The penalty prescribed is a fine of from \$500 to \$1,000, or solitary imprisonment at hard labor for a period of from one to three years, or both. No action seems yet to have been taken further than the introduction of the bill.

THE TARIFF ON DRUGS.—The new tariff law, as passed by Congress at its recent session, fixes new duties on many drugs and chemicals. Some of the most important articles and the rates are as follows: Refined camphor, five cents a pound; croton-oil, fifty cents a pound; ammonia, twenty per cent. ad valorem; castor-oil, eighty cents a gallon; liquorice paste or roll, seven cents and a half a pound; liquorice juice, three cents; sulphuric ether, fifty cents a pound; nitrous ether, thirty cents; aqueous extract of opium, tincture of opium, and all other liquid preparations of opium, forty per cent. ad valorem; morphine, and all salts thereof, one dollar an ounce; all medicinal preparations, known as cerates, conserves, decoctions, emulsions, extracts (solid or fluid), infusions, juices, liniments, lozenges, mixtures, mucilages, ointments, pills, plasters, powders, syrups, etc., not specially rated, twenty-five per cent. ad valorem; proprietary preparations, such as cosmetics, pills, powders, troches, lozenges, syrups, cordials, bitters, anodynes, tonics, plasters, liniments, salves, ointments, pastes, drops, waters, essences, spirits, oils, or preparations or compositions recommended to the public as proprietary articles, or prepared according to some private formula, as remedies or specifics for any disease or diseases or affections whatever affecting the human or animal body, including all toilet preparations whatever used as applications to the hair, mouth, teeth, or skin, not specially enumerated otherwise, fifty per cent. ad valorem; all imitations of mineral waters, thirty per cent. ad valorem, etc. The free list embraces a larger number of articles than ever before, and among them are the following: Aconite, balm of Gilead, ipecac, cinchona or other barks used in the manufacture of quinine, crude camphor, unground ginger root, unground liquorice root, nux vomica, lavender, arsenic, sulphate and other salts of quinine, cinchonidine, vaccine virus, mineral waters not artificial, chamomile, muriate of potash, etc.

ECONOMICAL CREMATION.—The cost of cremating seven thousand bodies per annum at Bombay is said to be only £3,000, or rather less than ten shillings for each corpse.—*Med. Times and Gaz.*

DR. ALEXANDER J. STONE ON THE OLD CODE.—Dr. Alexander J. Stone, Vice-President of the American Medical Association and late President of the Minnesota State Medical Society, said in his presidential address:

"The code, since its final adoption, has apparently been laid upon the shelf by the side of the family Bible, to be treated with almost as much reverence, to be read quite as seldom, and to be quoted only when its provisions enable one to discipline a rival, or to exclude him from the benefits of professional affiliation. A judicial consideration of the code forces a conclusion that much which it contains is gratuitous insult to the profession, and more is rather calculated to amuse than to impress with respect the mind of the layman. There is not a

clause or sentence in the first two articles which is not absolutely true; but, should the self-evident truths contained in Article I be held constantly before the physician, as if by nature he was a brute who is to be taught the ordinary laws of humanity; a fool who must be taught a wisdom in the management of his patients which instinct alone would inculcate; a knave who must be withheld from empiricism; or a man without the instincts of a gentleman? Granted that men enter the ranks of the profession to whom the epithet of 'fool,' 'knave,' or 'clown' applies, of what value are the platitudes concerning brotherly love, or to what good is a formulated code defining the relations of medical men to the public or to each other? Among gentlemen such a code is unnecessary; among pirates it only serves to foster a cat-hauling hostility; as between a gentleman and a pirate, any difficulty which may arise is not to be satisfactorily settled by a reference to any code, because the standpoints from which each looks at matters differ too widely—nor are the penalties which the code imposes such as to deter a real rascal, nor is that unsovereign body, the medical profession, able to enforce its laws rigorously."—*Med. Age*.

THE "MEDICAL AGE" ON THE NEW YORK CODE.—In a recent issue the "*Medical Age*," of Detroit, says: "It is not our purpose to discuss the merits of the New York code at this time, or even to pronounce an opinion in regard to it. We desire merely to refer to the spirit in which it has been criticised by some of our contemporaries. That spirit has in many instances been a reflection on the toleration and fair-mindedness of the regular medical profession. From quarters, coming from which they have been a painful surprise, the criticisms have been of such a personal nature as to be entirely unworthy the organs of a liberal and high-minded profession. The motives of the framers and advocates of the code have been so coarsely impugned in them as to make it a compromise of proper professional dignity to even notice them, and the two journals in New York which have advocated the new departure have but increased the respect which their calm, dispassionate discussion of it has created, by not deigning to notice the ill-natured personalities which have been indulged in in lieu of argument. Because when the matter was pending they, in an emphatic manner and in a legitimate spirit of controversy, discussed the defects of the old code and merits of the new; they were accused of being the tools of a coterie of New York specialists, and of advocating the change for sinister purposes. Now that, after the State society has taken final action, and when to continue the discussion would be 'stale, flat, and unprofitable,' as well as liable to irritate those of opposite views whose minds are thoroughly made up, they have let the matter drop, they are taunted with being not at all 'enthusiastic' or 'exultant' over the success which has attended their efforts, and are accused of having their ardor dampened by the disapproval of the profession, which from 'the beginning has placed only one estimate on the motives which have actuated this movement.' Exultation over a defeated combatant is no longer regarded as either necessary or even pardonable among men of finer sensibilities. There was a time in the history of the race when such exultation was quite in keeping, but we have outlived those days of animalism, and the qualities which are now regnant do not tolerate it, and not to exult is no longer regarded as by any means an evidence of practical defeat."

THE NEW CODE IN KINGS COUNTY.—At a meeting of the Medical Society of the County of Kings, held Tuesday evening, the 17th inst., the question of the attitude of the society on the code question came up. Dr. Kretschmar offered a resolution to the effect that the society accepted the action of the State society, and that the council be directed to bring the by-laws into conformity with that action. This was afterward withdrawn, and the subject was laid on the table. Finally, however, a motion was made by Dr. Prout, that the council be instructed to correspond with the State society, with a view to making the by-laws correspond with the requirements of the new code. This was carried by a large majority, without debate.

THE BOSTON WATER BOARD.—Among the appointments now before the Boston Board of Aldermen we find mention of that of Dr. John G. Blake as a Water Commissioner. The aldermen of Boston should certainly feel no hesitation to confirm so admirable an appointment.

SMALL-POX IN PENNSYLVANIA.—The "*Tribune*" has information to the effect that small-pox has been gaining ground rapidly of late in the region between Scranton and Carbondale, that the authorities of Dunmore have taken measures to prevent communication with the villages lying to the north of that place, that the schools in Oliphant, Dickson City, Throop, and Blakely have been closed, and that public vaccination has been ordered.

THE TRAFFIC IN DEAD BODIES.—According to the newspapers, this industry has been flourishing in Chicago for some time past, one Chaffee, the county undertaker, being reported to have sold three quarters of the dead bodies of paupers to the medical colleges, his revenue from this source exceeding \$6,000 annually.

THE NEW HAVEN MEDICAL ASSOCIATION.—A member was recently expelled from the association on account of his connection with a case of criminal abortion.

THE NEW YORK NEUROLOGICAL INFIRMARY.—An institution bearing this title and having for its object "the gratuitous treatment of the poor for all diseases of the nervous system" has been incorporated in this city. Dr. J. L. Corning, Dr. M. Josiah Roberts, and Messrs. Sidney Green, John T. Sherman, and Benjamin Crane have been elected trustees for the first year.

DEATH OF DR. FARR, THE STATISTICIAN.—William Farr, M. D., F. R. S., D. C. L., the well-known English statistician, is reported to have died on Monday, the 16th inst. For many years Dr. Farr devoted a great deal of patient and effective labor to the task of securing a systematic and intelligible registration of vital statistics, and to his efforts the methods now in general use are largely due.

OWING to the pressure upon our columns this week, we have been obliged to divide Dr. Flint's concluding article, and to postpone the publication of Dr. Piffard's second article, which will appear in our next number, as well as Dr. Flint's concluding remarks.

"THE MARYLAND MEDICAL JOURNAL."—The editors of this estimable journal announce that, beginning with the tenth volume, the first number of which will be issued May 3d, it will appear as a weekly, to be published every Thursday. Each number will contain sixteen double-columned pages. We congratulate the editors on this evidence of the continued prosperity of their journal.

ARMY INTELLIGENCE.—*Official List of Changes of Stations and Duties of Officers of the Medical Department, United States Army, from April 7, 1883, to April 14, 1883.*—ALEXANDER, CHARLES T., Major and Surgeon. To be relieved from duty at the United States Military Academy, West Point, New York, August 28, 1883. Par. 6, S. O. 82, A. G. O., April 10, 1883. — BARTHOLF, JOHN H., Captain and Assistant Surgeon. The extension of leave of absence for twenty-three days by S. O. 37, C. S., Department of the Columbia, further extended one month. Par. 1, S. O. 31, Military Division of the Pacific, April 3, 1883. — GIBSON, R. J., Captain and Assistant Surgeon. Relieved from duty at cantonment on the Uncompahgre, Colorado, and assigned to duty at Fort Hays, Kansas. Par. 1, S. O. 73, Department of the Missouri, April 7, 1883.

NAVAL INTELLIGENCE.—The "*Army and Navy Journal*" mentions Surgeon J. H. Kidder as one of the officers of the steamer *Albatross*, which vessel has been fitted up with reference to scientific work, and will shortly leave for a summer cruise, after a magnetic survey at Norfolk. It is expected that she will go to London during the summer, as a part of our exhibit at the International Fish Exhibition.

SOCIETY MEETINGS FOR THE COMING WEEK.—*Monday, April 23d:* Medical Society of the County of New York. *Tuesday, April 24th:* Jersey City Pathological Society; Council of the New York Academy of Medicine; Dermatological Society (private); Surgical Society. *Wednesday, April 25th:* Medico-Legal Society; Pathological Society. *Thursday, April 26th:* Academy of Medicine (Section in Obstetrics). *Friday, April 27th:* Society of German Physicians (private); Clinical Society (private); Yorkville Medical Association (private). *Saturday, April 28th:* Medical and Surgical Society (private).

Lectures and Addresses.

ABSTRACT OF A LECTURE ON

HEALTH-FOODS, INVALID-FOODS, AND INFANT-FOODS.*

DELIVERED BEFORE THE NEW YORK ACADEMY OF SCIENCES,

By PROFESSOR ALBERT R. LEEDS, Ph. D.,

OF THE STEVENS INSTITUTE OF TECHNOLOGY, HOBOKEN, N. J.

MR. PRESIDENT AND GENTLEMEN: Before proceeding to inquire into the relative value of health-foods, invalid-foods, and infant-foods, it is essential that we decide upon some criterion by which to judge of the value of foods in general; and for the present I have no better criterion to offer than that of considering food valuable according to the amount of mechanical energy it will supply, and here, as in all other cases, mechanical energy should be represented by heat. This heat is derived from some form of chemical combina-

tion, and the commonest source is from the combination of some of the constituents of a substance with oxygen. This combination we call combustion, or burning. Now, the same law that holds for combustion in general applies to the heat derived from the combustion of substances in the human body. Therefore, the law of Joule applies as well to the human body as to the action of a steam-engine. This law is simply that the amount of heat required to raise one pound of water from zero to one degree Fahrenheit is always represented by the amount of mechanical energy necessary to raise 772 pounds a distance of one foot. Or, in other words, if you let a 772-pound weight fall a distance of one foot, it will evolve enough heat to raise the temperature of one pound of water one degree Fahrenheit.

A distinguished English chemist, Dr. Frankland, was led by this method of reasoning to make some very careful experiments for the determination of the exact amount of mechanical energy represented by the heat that could be evolved by burning various articles of food. The way he did was to take the same amount of different foods and burn them, and then measure the amount of heat evolved from each; and this heat represented the mechanical energy stored up in each kind. The results of some of his calculations are shown in the table before you. In each case he took one pound of the food, and, after a careful combustion of it, he measured the amount of heat or mechanical energy evolved, not by the number of pounds, for then the figures would be too large, but by the number of tons that could be raised one foot high. He found, thus, that if he burnt a pound of pure albumin, he obtained an amount of mechanical energy equivalent to raising 2,643 tons one foot high. A pound of starch represented mechanical energy capable of raising 2,427 tons one foot high, a pound of wheat flour was equivalent to 2,383 foot-tons, a pound of lean beef to 885 foot-tons, of cane-sugar, 2,077 foot-tons, and a pound of beef fat gave the highest amount of all—namely 5,649 foot-tons. If, then, the combustion of these various kinds of food were as perfect in the body as Dr. Frankland obtained in his laboratory, we should obtain from them the enormous amount of energy represented by these foot-tons. But the fact is, that a certain amount of this energy is used up in the form of heat to keep the body warm and at its proper temperature, some in repairing the loss continually going on in the animal tissues, and part of it is represented in the waste matters that pass out of the system unused. So Helmholtz, on experimenting to find how much of the energy derived from food was available for use on the outside of the body in a healthy man, found that the mechanical work that could be done was represented by figures only one fifth the size of these large numbers representing the theoretical amount of energy in the food.

These calculations are sufficient for our present purpose, which is, merely to arrive at an approximate estimate of the amount of each kind of food that the human body requires. To make such an estimate is apparently a difficult matter, but just as, if you burn a pound of coal or wood, it gives off a certain amount of carbonic acid and water in the smoke, while it liberates a certain amount of mechanical energy,

* The following was displayed during the lecture :

FOOD SUBSTANCES.	H. & O.		C., H. & O.					O., H., C., N., S., P., Fe., etc.	Mineral constituents.
	Water.	Fat.	Grape-sugar.	Cane-sugar.	Starch.	Cellulose, gum, etc.	Albuminoids.		
Theoretical.....	81	3		11			4		1
Human milk.....	87.3	3.5	M. S. 7.09				1.85		0.21
Cow's milk.....	87.7	3.75	M. S. 4.42				3.42		0.64
Wheat.....	8.7	2.22		3.46	72.30	1.49	10.15		1.67
Ox flesh (beef).....	72.25	5.19					21.39		1.17
FARINACEOUS FOODS.									
Hubbell's prepared wheat food.....	7.78	0.41	7.56	4.87	67.60		10.13		1.00
Wheat flour used for the same.....	9.02	1.01	2.34	2.46	67.60		7.47		0.98
Blair's prepared wheat food.....	9.85	1.56	1.75	1.71	64.80	2.94	7.16		undet.
Hazard's Graham farina.....	9.12	0.81	2.19	2.49	69.68	5.56	8.48		undet.
Imperial granum.....	5.49	1.01			78.93	0.50	10.51		1.16
Cereal milk.....	9.23	1.01	4.60	15.40	58.42		11.08		1.16
Ridge's food.....	9.23	0.63	2.40	2.20	77.96		9.24		undet.
Robinson's patent barley Victor baby food.....	10.10	0.97	3.08	0.90	77.76	1.93	5.13		0.60
Farwell & Rhine's gluten flour.....	7.49	1.62	0.62	19.92	63.45		8.87		0.96
Health Food Company's light gluten.....	12.67	0.84	2.23	1.42	68.36	0.51	10.39		1.00
	11.90			3.67	49.53		23.18		undet.
CONDENSED AND PRE-SERVED MILK.									
Condensed (mean of 41).....	30.34	12.10	M. S. 16.62	22.26			16.07		2.61
Preserved Alpine.....	58.57	13.21	M. S. 15.29				11.36		1.78
Preserved Amer.-Swiss.....	59.21	11.55	M. S. 13.04				14.10		2.09
Condensed milk (diluted).....	88.30	2.02	M. S. 2.77	3.71			2.68		0.43
Amer.-Swiss (diluted)...	87.78	3.46	M. S. 3.91				4.23		0.63
MILK FOODS.									
Nestlé's.....	4.72	1.91	*6.02	32.93	40.16		9.63		1.59
Gerber & Co.'s.....	6.78	2.21	6.06	30.50	38.48		9.56		1.89
Anglo-Swiss.....	6.54	2.72	23.29	21.40	34.55		10.26		1.20
Amer.-Swiss.....	5.68	6.81	5.78	36.43	30.85		10.54		1.21
LIEBIG'S FOODS.									
Savory & Moore's.....	8.34	0.40	20.41	9.08	36.36	0.44	9.63		
Mellin's.....	5.00	0.15	44.69	3.51	none		none		1.89
Horlick's.....	3.39	0.08	34.99	12.45	none		6.71		1.28
Hawley's.....	6.60	0.61	40.57	3.44	10.97		5.38		1.50
Keasbey & Mattison's...	27.95	none	36.75	7.58	none		none		0.93
Baby sup.....	11.48	0.62	2.44	2.48	51.95	5.24	7.92		1.59

* And milk-sugar.

and, if we confine and measure the amount of carbonic acid and water evolved, we can tell how much fuel has been used, so, if we measure the products of combustion in the human body, which are carbonic acid from the lungs, and water from the skin, and waste matter in the other excretions, we can reason back and find the approximate amount of mechanical energy which has been evolved by a given quantity of food. It has thus been found that the mechanical energy equivalent to the formation of all these products of combustion in the human body for one day is equal to a weight of 4,000 tons raised one foot high. This represents the total daily waste of a man in health weighing 154 pounds, and the actual quantity of these waste products in such a man is $8\frac{1}{2}$ pounds daily. Now, it is evident that, if we are burning up our tissues at that rate, in order to maintain our present weight the daily supplies of food must be equivalent to the amount of waste, and, therefore, the average amount of food for a man must be $8\frac{1}{2}$ pounds daily. But from this we may subtract $1\frac{1}{2}$ pound for the weight of the oxygen in the air we breathe, and this leaves 7 pounds to be accounted for; then we may subtract 5 pounds more as the weight of the water we drink, or that is contained in the food or taken into the system in other ways, and this, therefore, leaves only $1\frac{1}{2}$ pound as representing the entire amount of dry material a man should eat to supply the total daily waste of his system. This total daily waste is measured by certain amounts of each of the elements—carbon, hydrogen, oxygen, and nitrogen principally, besides small quantities of sulphur, phosphorus, and a variety of other mineral salts; and this being the case, it follows that these same elements must all enter in as a part of the $1\frac{1}{2}$ pound daily supply of food. These elements exist in the food as combinations of water in the proportion of 81 per cent.; fat, 3 per cent.; compounds of C, H, and O, 11 per cent., of C, H, O, and N, 4 per cent.; and saline matters, 1 per cent.

You will see I have placed these theoretical computations of the composition of food at the top of my table, and immediately below I have placed the results of analyses as to the composition of human milk and of cow's milk; and then of wheat as representing the most nutritious of vegetable foods, and of beef the most nutritious of animal foods. These figures representing the composition of cow's milk are the mean of a large number of examinations of the milk of the cows in New Jersey, and represent very nearly the average composition of milk delivered in the city of New York. The analyses were made by the method of Ritthausen for both human and cow's milk.

An examination of these figures in the table shows that human and cow's milk approach far more nearly the theoretical composition of human food than any other article in the table. But it may be said that, in attempting to find out the best composition for human food, we should not be guided by mere theoretical notions, but we should find out by experiment the best composition for health foods. And this has, in fact, been determined by elaborate quantitative tests. If a food is all it should be, it ought to supply all the wants of the body, and no part except the non-nutritious portions be ejected. But there is practically no substance

known that will entirely fill that rôle. Cow's milk is not, if taken alone, a suitable continuous food for an adult, for the nitrogenous matters in it, or albuminoids, are not all assimilated, and, if taken alone, the assimilation is not so perfect as when it forms part of a mixed diet. It has been shown that when an infant two or three months old was fed on cow's milk alone, while the albuminoids could be perfectly assimilated, a considerable proportion of the fatty matters could not; and J. Forster says that on feeding a child of four months with cow's milk, and a decoction of rice and water in the proportion of one part of cow's milk to four of the decoction, he found that nearly one third of the fat of the cow's milk was not assimilated, and he obtained 34 per cent. of ash. As regards human milk, it is found that one twelfth of the fat is not assimilated by infants. Therefore, we may conclude that this fat either plays no part in the animal economy of the child, or else it subserves some purpose not yet understood.

Before attempting to decide whether or not human milk is the best food for an infant, I wish to ask your attention to one or two other points, and the first is the importance of taking notice of the ratio existing between the substances in a food containing nitrogen—that is, food composed of C, H, O, and N, or albuminoids—and those substances which do not contain nitrogen, but only carbon, hydrogen, and oxygen—that is, substances containing carbon with the elements of water, and known as carbohydrates. It is found that the substances containing nitrogen are those which are chiefly concerned in building up and repairing the waste of the body; that is, they supply nourishment to muscular, brain, and nerve tissues, and they may, therefore, be called the flesh-formers of the body, while the carbohydrates are simply burned up into carbon dioxide and water, and are useful to supply fuel to the system, and so may well be called the fuel-producers of the body. Neither of these classes is exclusively a flesh-producer or fuel-producer, however, but each can, to a certain extent, take the part of the other. Yet it is very important to recognize the general division of food substances into two great classes—albuminoids and carbohydrates. Now, as you look over this table of the composition of different foods, it might seem that, if we knew the percentage of albuminoids and carbohydrates in the composition of each, we could easily determine the relative values of the different foods simply by observing the ratio of these two great classes to each other. But, before relying upon such calculations, let me warn you that it will not do to simply add together the numbers representing the percentage of albuminoids in the composition of a food, and compare it with the number representing the percentage of fats and carbohydrates in order to determine its value, for this reason. Dr. Frankland found by his experiments that one pound of beef fat would give off in combustion an amount of mechanical energy represented by 5,600 foot-tons, while arrowroot starch gave off but little more than 2,000 foot-tons of energy; and, therefore, in a pound of beef fat there is nearly three times as much power, or heat, as in an equal weight of arrowroot starch. To multiply the power of the carbohydrates by three to determine the relative power of fats is, however, considerably too high

an estimate practically. For, in those well-known physiological experiments made at Munich by Pettenkofer, he showed that the true ratio between the amount of mechanical energy set free by the burning up of fat in the body to that of other foods made up of carbohydrates was as 1.75 to 1. Now, when we remember this fact, and turn to our table and begin by observing the composition of our theoretical food, we find that the ratio of the albuminoids to the carbohydrates is here as 1 to 4, and that ratio is higher than in any one of the other foods in this table except that of beef, where the proportion of albuminoids is twice as great as the carbohydrates. This ratio of the albuminoids to the carbohydrates in any food I speak of as the "ratio of nutrition." In the theoretical food it is 1 to 4; in woman's milk it is 1 to 7; and in cow's milk 1 to 3.2.

I speak with some diffidence on this matter, because I find in setting down these calculations that I am at variance with those set down in the elaborate work of König; but König based his calculations upon analyses of a vast number of samples of both cow's and human milk, which analyses were made by the older and less exact methods. He arrived at the conclusion that the ratio of nutrition in human milk was as 1 to 5.2, and in cow's milk as 1 to 3.4. Very greatly to my surprise, I found, on making some thirty analyses of samples of normal woman's milk, from patients under the care of Dr. A. M. Thomas, of the Emigrants' Hospital at Ward's Island, that the ratio of the albuminoids, according to my own analyses, was even lower than that stated by König. I found it but 1.7, or but one half that in cow's milk. In most of the text-books of medicine I find it stated that the ratio of the albuminoids to the carbohydrates in cow's milk is so much greater than in human milk that it is necessary in feeding infants to diminish in some way the relative amount of albuminoids. This statement is based upon the observed differences of composition as determined by analyses, and its correctness has been amply verified by both laboratory and experimental investigations.

The second important point to which I wish to call your attention is this: If you take human or cow's milk and coagulate it by rennet, you will find that the curd of human milk falls in very finely divided coagula, but that of cow's milk forms a sort of cheesy mass, broken up into large and hard clots. This difference in the coagula must largely depend upon the character of the albuminoids in the milk itself. And, in the ordinary analyses of milk, all these albuminoids are classed together and spoken of as consisting of albumin and casein. But, if a narrower scrutiny were made, a great difference would probably be found between the composition of the albuminoids in woman's and in cow's milk.

When it is found necessary to substitute cow's for human milk, the advice is given to dilute the cow's milk to the average strength of human milk; but it is evident, if this is done, that the ratio of the albuminoids to the carbohydrates will still be the same as before. The better plan, therefore, is to add to the watery portion of the milk something like the extract of barley or oatmeal, or the like, until a similar percentage of albuminoids is reached as in human milk. It

seems probable that there is something specific in the malt derived from barley or oats, which, when added to milk, alters the condition of the clot and makes it more like that of human milk, and so is more easily digested by infants. It seems to me, therefore, a question worthy of investigation, whether adding such substances as gum, gluten, dextrin, starch, and extracts of barley or oatmeal, may not be the best way of overcoming the objections to substituting cow's for human milk. And, in fact, this is just what has been done in the manufacture of these milk foods. In the farinaceous foods the diluent is principally starch, in the milk foods it is largely sugar and starch, and in Liebig's foods it is gum, or dextrin and sugar.

Now I have come to the most important matter of the lecture, and that is, the consideration of the proposition, at one time sincerely made, of substituting some other food for human milk as being a better food for infants. But the proposition to make this substitution is sustained neither by theoretical nor by experimental facts. Nevertheless, when it becomes a matter of necessity to substitute something else for human milk, then we will have to consider the claims of these various substitutes and compare together their real and not their advertised merits. Now, when we come to analyze these different manufactured foods, we find that they will all fall into one of three classes, and these are: (1) Farinaceous foods, (2) milk foods, and (3) Liebig's foods. I may also say here that each one of these is claimed by its manufacturer to be the best, if not the only fit food, to be used by infants.

Two years ago my colleague, Professor Thurston, from over-work was suffering from mental and physical prostration, which led to a deficiency of nutrition; so he determined to attempt to supply the want, and at the same time continue his severe mental work, by subsisting on foods composed principally of substances rich in albuminoids, or rather nitrogen, such as farinaceous preparations rich in gluten, with the result, he says, of increasing his vigor and prolonging his life. The foods that he was principally using at that time were those made by a company in New York that had been organized for this purpose, and known as the Health Food Company, and they were said to be rich in gluten. When he related these facts to me I told him that the foods he had been taking so long and with such advantage were said to contain no gluten, showing him a communication in a medical journal by Dr. E. Cutter, who stated that there was no gluten in these health foods. Dr. Cutter's pictures of microscopical examinations of them contained no gluten cells at all, and hence he stated that they were unfit for food, and worse than common flour. Thereupon my friend asked me to investigate this matter, and make an examination of these foods myself; and I did so, with the results I have set before you. But I was surprised to find that a physician of this city, Dr. Jacobi, was led to believe by these statements of Dr. Cutter that these manufacturers were perpetrating wholesale frauds upon the community. I have no question that Dr. Jacobi indorsed this article before making an extended personal investigation into the truth of its statements. Nevertheless, great wrong was done to the manufacturers of these foods, who, I think,

were honestly endeavoring to build up the health of the community. All of us, no doubt, feel at times that we need something to supply our exhausted nervous forces. These manufacturers were faithfully endeavoring to produce something to supply this need, and so I think that injury was done them by making too unqualified statements. Now, each of these manufacturers, as I said, advocates his own food as the best. There is no question that they are all trying to attain one end; but one tries in one way and another in another, and so each thinks that his method is the one best adapted for the purpose.

If we calculate the nutrition ratios of these various foods, we will find a great difference among them, and their values are to be measured by this nutrition ratio not only, but also by their relations to the processes of assimilation and digestion, and so on. Some of the earliest substances used by these manufacturers were farinaceous foods—such as tapioca, starch, and the like. But, after a time, physiologists found that the practice of giving starch to infants had serious objections, because in the system the starchy matters of food are not digested as such, but they are first converted into sugar, and so must be broken up primarily, and the power of effecting this conversion is much less in the infant than in an adult. This fact may be illustrated by a simple experiment. If you put a small bag full of starch into the mouth of an infant, the saliva acting upon it causes the decomposition and conversion of an extremely small portion of the starch into sugar, but the amount capable of being changed rapidly increases as the infant grows older. But Liebig devised a solution of this problem in this way: he said: If the infant lacks the material necessary to convert starch into sugar, we can make this conversion for him. He was familiar with the fact that in making ale or beer such a conversion is always effected. In this process, when the malt of the barley comes in contact with the wheat, the diastase of the barley causes the starch of the wheat to be broken up, and an infusion of dextrin and sugar is obtained. Liebig proposed to do this same thing for the child, because in it there is a deficiency of the ferment of the saliva, known as ptyalin, by which the starch of food is converted into sugar. So he proposed and made Liebig's food by taking malted barley and wheat and putting them in water and heating them together for half an hour, and then straining off the water and mixing the solution, after straining, with milk. This is Liebig's theory for infant foods. Liebig wanted the mothers in Germany to prepare their babies' food in this way; but, unfortunately, they were so thoughtless or careless that they would not take the trouble to do this, and so at last the work of preparing it fell into the hands of manufacturers. We, therefore, in these foods have the starch converted into dextrin and sugar, and a certain amount of albuminoids is left behind.

If now you will look at the table, you will see that Savory & Moore's food has about 36 per cent. of starch, and 20 per cent. of grape- and 99 per cent. of cane-sugar, besides nearly 10 per cent. of albuminoids. Mellin's food has no albuminoids, but it has a high percentage of glucose, while the remainder is principally dextrin and gum. In Horlick's food there is 6.71 per cent. of albuminoids, 12

per cent. of cane- and 35 per cent. of grape-sugar, and no starch, and it looks, therefore, as if the conversion of the starch here had been quite perfect. In the case of Hawley's food we find the albuminoids are 5 per cent. and the unconverted starches 11 per cent., and there is 3 per cent. of cane- and 41 per cent. of grape-sugar. Keasbey and Mattison's foods have no albuminoids and no starch, but a high percentage of grape-sugar and a moderate percentage of cane-sugar, and this preparation not only looks like but smells like molasses. Baby sup is the worst of all, for very little of the starch has been converted into sugar. This is not exactly the kind of food that Liebig intended for feeding infants, I think.

After Liebig's time came up the proposition to take a farinaceous body and combine the various elements of a perfect food by adding milk to it, thus making a combination of farinaceous substances and cow's milk. These are known as condensed milk and milk foods, and they are the only artificial foods containing any considerable amount of fats. The American-Swiss is one of the best of the milk foods, and it contains 6.8 per cent. of fats. One shortcoming is in the amount of sugar in these milk foods, and it would seem as though it would be a great forward step in their preparation if we could avoid this difficulty by mixing farinaceous matters and milk without adding so much sugar.

There is a step forward being now made which I think will prove a triumph. The introduction of condensed milk was a great boon, but recently the advance has been made of making a milk food that will keep without any sugar scarcely. This is called preserved milk. I have got two samples of preserved Alpine milk containing only 4.13 per cent. of cane-sugar, and if you dilute this with water to the same consistency as natural milk, you will get almost the same composition as in cow's milk. This is an advance that marks an era in these matters, and I think it will prove ultimately to be a great public boon.

When the analysis of these different foods showed me that they fell into these three classes, I went to a number of distinguished physicians, who had tried them in their practice, to get their opinion as to the relative value of each class, and I fully expected that they would tell me that they found different results in feeding infants and children on different varieties of food; but I was immensely disappointed in the results of my investigations, not only among the physicians of New York, but also of Philadelphia and Boston, and I was astonished to find that in almost every case their verdicts were the result of personal experience only. When I find such results from the use of foods so very different in character, it almost draws me to the conclusion that the principles on which the manufacture of these foods is based are not the real ones which determine the utility of a food. If a physician can prescribe Mellin's food, which contains no starch, and get the same results as with imperial granum, which has 79 per cent. of starch, or Ridge's food, with 78 per cent. of starch, then it would seem that the idea of Liebig, that unchanged starch was an improper thing for a child's food, is not founded on fact. And is it, therefore, not necessary to come back to another idea, and that is, the question whether

the real utility of cow's milk does not depend on the principle suggested some time ago, that its digestibility is increased by adding something to it to coagulate it into a different kind of clot? That is to say, does not the real utility of it as a food depend upon whether we introduce something like gum, or starch, so as to throw down a finely divided coagulum, or by omitting to do this do we not permit the formation of a hard insoluble coagulum?

Before concluding my lecture, I will take a few moments and throw upon the wall a few magnified pictures, as illustrations of these various food substances. These are photographs of a microscopical image of the substances, and the first is a sample of ordinary milk; 2d, wheat starch granules; 3d, barley starch granules; 4th, imperial granum; 5th, grains of wheat; 6th, starch cells and wheat cells; 7th, wheat starch, and the same after moist baking, and after boiling the granules; 8th, starch granules baked dry; 9th, section of a barley grain; 10th, barley starch granules after they have been liberated from their envelopes.

One word more in conclusion. A few days ago, in reading a lecture by Dr. Meigs, of Philadelphia, I found he spoke of the fact that, out of every 100 children put under the care of the physician in the almshouse of Philadelphia, 100 children died. The fact is monstrous!

I shall feel repaid for all my efforts in this important matter if anything I may have said here this evening shall have induced any one of you to think more on this subject, and to agree with me that if there is any subject where, least of all, the cupidity of manufacturers ought to step in, it is the subject of infant foods.

Original Communications.

MEDICAL ETHICS AND ETIQUETTE.

COMMENTARIES ON THE NATIONAL CODE OF ETHICS.

By AUSTIN FLINT, M. D.

CONCLUDING REMARKS.

The proposal to write commentaries on our National Code of Ethics may have conveyed to the minds of many an idea of presumption. The writer of the foregoing commentaries indulges the hope that their perusal has not sustained this idea, inasmuch as he has not ventured to take issue with the code on any important point except one—namely, the ground for refusing medical consultations. Nor has he assumed to be an expounder of the code, but only to supplement comments in conformity with the spirit which pervades it. In fact, a leading motive has been to excite the attention of medical, and, perhaps, also, to some extent, non-medical readers, to the code itself. There are many members of the medical profession who have never read the code with that degree of interest which it claims, and there are some who have never read it. These assertions are based on information obtained by personal inquiries. It is safe to say of the public that not one in a thousand knows anything of its character and provisions. If the

publication of the code in connection with the commentaries may lead in any measure to the diffusion of a better knowledge of it, the writer would have the gratification of feeling that he had done a good work. When it is considered that this ethical code was adopted by the American Medical Association thirty-six years ago without a dissenting voice, that it has remained without any alteration by the association up to the present time, and that it has been accepted without any modification by every medical organization which has adopted any code throughout our country, how can any one doubt that it must be remarkably free from objectionable features! Were it otherwise, such an extraordinary unanimity of approval for so long a period would have been impossible. But the code in itself affords the best evidence of its intrinsic excellence. It is a collection of ethical principles and rules which can not but commend themselves to the approbation of every one. Their excellence has never been questioned. No one can doubt that complete conformity to them would secure for the medical profession, in the highest degree, purity, humanity, and universal respect.

The writer is not one of those who apparently have a fondness for disparaging the medical profession of this country. He believes that a large proportion of the members of the profession are desirous of conforming to the Code of Ethics. He believes, moreover, that, from the standpoint of the observance of medical ethics, the profession of America will compare favorably with that of any other country. If this view be correct, much is to be attributed to the influence of our national code, and it is a rational conclusion that this influence will be increased by a more general knowledge of its teachings and requirements. For this end, knowledge of the code should be made a part of medical education. Schools of medicine should not assume that, as a matter of course, graduates will make themselves acquainted with it. It should be brought to the attention of medical students, and its precepts inculcated by their teachers. Conformity to it should be embraced in the obligations formally acknowledged when the doctorate is conferred. Recent events, which are now to be referred to, will, it is hoped, be ultimately productive of good by directing greater attention to the code, and enhancing its importance in the minds of the profession.

The New York State Medical Society, at its annual meeting in February, 1882, adopted, as a substitute for the National Code of Ethics, the following:

CODE OF MEDICAL ETHICS.

- I. THE RELATIONS OF PHYSICIANS TO THE PUBLIC.
- II. RULES GOVERNING CONSULTATIONS.
- III. THE RELATIONS OF PHYSICIANS TO EACH OTHER.

I.—The Relations of Physicians to the Public.

It is derogatory to the dignity and interests of the profession for physicians to resort to public advertisements, private cards, or handbills, inviting the attention of individuals affected with particular diseases, publicly offering advice and medicine to the poor without charge, or promising radical cures; or to publish cases or operations in the daily prints, or to suffer such publications to be made; or, through the medium of reporters or interviewers or otherwise, permit their opinions on medical and sur-

gical questions to appear in the newspapers; to invite laymen to be present at operations; to boast of cures and remedies; to adduce certificates of skill and success, or to perform other similar acts.

It is equally derogatory to professional character, and opposed to the interests of the profession, for a physician to hold a patent for any surgical instrument or medicine, or to prescribe a secret nostrum, whether the invention or discovery or exclusive property of himself or others.

It is also reprehensible for physicians to give certificates attesting the efficacy of patented medical or surgical appliances, or of patented, copyrighted, or secret medicines, or of proprietary drugs, medicines, wines, mineral waters, health resorts, etc.

II.—*Rules governing Consultations.*

Members of the Medical Society of the State of New York, and of the medical societies in affiliation therewith, may meet in consultation legally qualified practitioners of medicine. Emergencies may occur in which all restrictions should, in the judgment of the practitioner, yield to the demands of humanity.

To promote the interests of the medical profession and of the sick, the following rules should be observed in conducting consultations:

The examination of the patient by the consulting physician should be made in the presence of the attending physician, and during such examination no discussion should take place, nor any remarks as to diagnosis or treatment be made. When the examination is completed, the physicians should retire to a room by themselves, and, after a statement by the attending physician of the history of the case and of his views of its diagnosis and treatment, each of the consulting physicians, beginning with the youngest, should deliver his opinion. If they arrive at an agreement, it will be the duty of the attending physician to announce the result to the patient, or to some responsible member of the family, and to carry out the plan of treatment agreed upon.

If in the consultation there is found to be an essential difference of opinion as to diagnosis or treatment, the case should be presented to the patient, or some responsible member of the family, as plainly as possible, to make such choice, or pursue such course as may be thought best.

In case of acute, dangerous, or obscure illness, the consulting physician should continue his visits at such intervals as may be deemed necessary by the patient or his friends, by him, or by the attending physician.

The utmost punctuality should be observed in the visits of physicians when they are to hold consultations, but, as professional engagements may interfere or delay one of the parties, the physician who first arrives should wait for his associate a reasonable period, after which the consultation should be considered as postponed to a new appointment. If it be the attending physician who is present, he will, of course, see the patient and prescribe; but, if it be the consulting physician, he should retire, except in an emergency, or when he has been called from a considerable distance, in which latter case he may examine the patient, and give his opinion in writing, and under seal, to be delivered to his associate.

III.—*The Relations of Physicians to Each Other.*

All practitioners of medicine, their wives, and their children while under paternal care, are entitled to the gratuitous services of any one or more of the faculty residing near them, whose assistance may be desired.

Gratuitous attendance can not, however, be expected from physicians called from a distance, nor need it be deemed obliga-

tory when opposed by both the circumstances and the preferences of the patient.

The affairs of life, the pursuit of health, and the various accidents and contingencies to which a medical man is peculiarly exposed may require him temporarily to withdraw from his duties to his patients, and to request some of his professional brethren to officiate for him. Compliance with this request is an act of courtesy, which should always be performed with the utmost consideration for the interests and character of the family physician, and, when exercised for a short period, all the pecuniary obligations for such service should be awarded to him. But if a member of the profession neglect his business in quest of pleasure and amusement, he can not be considered as entitled to the advantages of the frequent and long-continued exercise of this fraternal courtesy without awarding to the physician who officiates the fees arising from the discharge of his professional duties.

In obstetrical and important surgical cases, which give rise to unusual fatigue, anxiety, and responsibility, it is just that the fees accruing therefrom should be awarded to the physician who officiates.

Diversity of opinion and opposition of interest may, in the medical as in other professions, occasion controversy, and even contention. Whenever such cases unfortunately occur, and can not be immediately terminated, they should be referred to the arbitration of a sufficient number of physicians before appealing to a medical society, or the law, for settlement.

If medical controversies are brought before the public in newspapers or pamphlets by contending medical writers, and give rise to or contain assertions or insinuations injurious to the personal character or professional qualifications of the parties, the effect is to lower in the estimation of the public not only the parties directly involved, but also the medical profession as a whole. Such publications should, therefore, be brought to the notice of the county societies having jurisdiction, and discipline inflicted, as the case may seem to require.

In justice to the medical profession of the State of New York, the number of votes by which the foregoing "new code," as it is called, was substituted for the national code, should be stated and kept in mind. The substitution was carried by 52 ayes against 18 nays. A two-thirds majority of seventy persons thus decided to substitute a code in which a large part of the national code is abrogated, and to insert in the portions retained a modification which, as will presently be seen, is of great importance, thereby severing fellowship, by means of representation, of the State society and of county societies with the American Medical Association, as well as with societies in other States.* Those of the medical profession of the State of New York who

* The following is the ninth by-law of the American Medical Association: "No State or local medical society, or other organized institution, shall be entitled to representation in this association that has not adopted the Code of Ethics, or that has intentionally violated or disregarded any article or clause of the same." In accordance with this by-law, the Judicial Council of the association, at the annual meeting in 1882, decided as follows: "Having carefully examined the Code of Ethics adopted by the New York State Medical Society at its annual meeting in February, 1882 (or furnished by the secretary of said society), the Judicial Council find in said code provisions essentially different from and in conflict with the Code of Ethics of this association; and, therefore, in accordance with the provisions of the ninth by-law of the American Medical Association, they unanimously decide that the said New York State Medical Society is not entitled to representation by delegates in this association."

had no expectation of such changes in the national code, and who were taken by surprise at the action of the State society, seemed to think that, as a matter of course, the action would be reversed at the next annual meeting. But, to complete the history, at the meeting in February, 1883, a motion for a reversal was lost, 99 voting for and 105 against it. Thus, at the present time, the New York State Society and the affiliated county societies in the State are ostensibly committed to the adoption of the new code. The New York Academy of Medicine, which has no connection with the State society except that it is empowered to send delegates to that body, retains the national code in its by-laws, and the fellows of the academy are therefore bound to it as fully as hitherto. It is not proposed to engage here in a controversial discussion of the reasons assigned for the action of the State society respecting the ethical code, and still less to inquire into personal motives. Some remarks, however, offered in a spirit of courtesy, may not be out of place.

Why more than one half of the national code was left out of the new code has not, so far as the writer knows, been explained. The omitted portion embraces the "duties of physicians to their patients," the "obligations of patients to their physicians," the "duties for the support of professional character," and the "obligations of the public to physicians." Certainly the duties and obligations as specified in the omitted portions of the code can not be objected to. It can do no harm to specify them. They do not occupy so large a space in print that it was advisable to eliminate them in order to curtail the length of the code. The only conceivable explanation of their omission is that they were considered as superfluous. But it may be that they who voted for their elimination judged incorrectly, however naturally, from their own consciousness. A personal sense of rectitude is not always a safe guide in judging of the importance of ethical rules for self-government in others. There are many persons who are not liable to the temptation to steal or commit murder, but no one will probably contend that, for this reason, the commandments relating to these offenses should be dropped from the decalogue.

The important modification in the portion of the national code which is retained in the new code is in this sentence: "Members of the medical society of the State of New York, and of the medical societies in affiliation therewith, may meet in consultation legally qualified practitioners of medicine." Since the discussions to which the substitution of a new code has given rise relate almost exclusively to this sentence, it is fair to conclude that herein is the gist of the matter. The point is that a legal qualification renders consultations permissible. Narrowing further the object of the modification, the practitioners of homœopathy have hitherto been excluded from consultations by an interpretation of the Code of Ethics; they are legally qualified practitioners, and, at the present time, they constitute the great majority of those with whom consultations have been considered as interdicted by the code. The question, therefore, now at issue in the State of New York is simply this: Shall consultations with homœopathic practitioners be permitted? The affirmative answer to this question is based

chiefly on two reasons—namely, first, the requirements of humanity; and, second, the legal status of homœopathic practitioners. These reasons are specious but invalid. It is a gratuitous reflection on the National Code of Ethics to imply that it interdicts professional services under any circumstances in which they are required by humanity. It was quite unnecessary to introduce into the new code the following sentence: "Emergencies may occur in which all restrictions should, in the judgment of the practitioner, yield to the demands of humanity." To intimate that this rule of action is in violation of the national code is a monstrous injustice to it and to the medical profession. As regards the legal status of homœopathic practitioners, this has nothing to do with the question at issue. It would be strange indeed if a State Legislature should undertake to regulate the professional ethics of physicians. This has never been attempted, and it probably never will be. The argument that a legal status affects in any measure the status as regarded from the standpoint of medical ethics seems to the writer too trivial to call for refutation. It will be time enough to consider seriously this argument when fellowship with all classes of practitioners is made compulsory by statute, and this is equivalent to an indefinite postponement.

The true ground for declining professional fellowship with any class of practitioners has been considered in the commentaries on that portion of the national code which relates to consultations. This ground is not a professed belief in the vagaries of Hahnemann, or in any other dogmas. It is the adoption of the names homœopathic, eclectic, botanic, etc., as a trade-mark; the formation of a sectarian school of practice, announced to the public as such, and the endeavor, in divers ways, to bring the regular medical profession into popular disrepute. The physicians who became the early disciples of Hahnemann were not driven out of the ranks of the profession; they made haste to go out of their own accord, and to announce to the public their secession. Then, as now, it suited their ends not to be regarded as simply practitioners of medicine. Then, and ever since, they have sought for popular patronage as a sect detached from the regular profession. Their success in obtaining practice is due to the belief entertained by their patrons that they have had sagacity and independence enough to break away from antiquated doctrines and traditional rules of therapeutics, supplanting these by the great discoveries of the founder of the sect. Under these circumstances, can members of the medical profession, imbued with a proper sense of professional honor, do any act which involves affiliation with homœopathic practitioners? The clause in the new code which sanctions consultations with them is a concession of honor, and a concession which has been publicly treated by them with scorn. Moreover, the concession implies a confession of error in the past; for, if the recent action of the State Medical Society be right, the medical profession has been in the wrong for the past thirty-six years!

The action which substituted a new code for our time-honored National Code of Ethics has brought upon the profession of the State of New York a great disaster. It

has substituted for harmony, dissension, with all the evils flowing therefrom—evils affecting not only the profession, but communities. Has this result been sufficiently considered? Granting honesty of purpose to those who originated and who have carried on with persistent efforts the movement against the national code, is it not the part of wisdom to pause and reflect upon these evils? Should not a measure fraught with such consequences command, to say the least, a large majority in its favor? Would it not be becoming in the ardent advocates of the measure to recognize the propriety of some approach to unanimity of opinion, and for this end be content to await the result of a fuller discussion and a longer period of deliberation? Finally, if the national code need revision, it is desirable that whatever changes are made should be uniform throughout the country, not differing in the different States of the Union. Therefore, in closing these remarks, the writer earnestly appeals to those who advocate the new code, and to those who are in favor of no code, to join hands with those who uphold the national code in submitting all questions concerning professional ethics to the American Medical Association, and to abide by the decisions of that body.

THE STATUS OF THE MEDICAL PROFESSION IN THE STATE OF NEW YORK.

By HENRY G. PIFFARD, M. D.

Second Article.

In our last we presented the medico-political or legal relations of the profession. In this we will consider the medico-educational.

The oldest of the existing medical colleges is the College of Physicians and Surgeons. This institution was chartered, not directly by the State, but by the regents of the university, in the year 1807. It was at that time virtually the same corporation as the New York County Society, or, in other words, the county society was constituted a medical faculty, with authority to teach and grant diplomas. This intimate relationship was not long maintained. The teaching body obtained independent powers, and was subservient, to a slight degree only, to the county society as such. The relationship, however, was not wholly dissolved, for, a few years later, when the college exhibited an unbecoming laxity in the granting of degrees, the society exercised its powers and influence to break up these practices. Since that time there has been, so far as we are aware, no special scandal connected with the management of its affairs. As an alumnus of the institution, we feel pride in stating that it has, before all others, been careful in the exercise of its corporate powers. This statement, however, is not true of some other colleges that were in existence during the early part of this century. The granting of diplomas was so lax that the State declared they should no longer be a license to practice ["The degree of doctor of medicine conferred by any college in this State shall not be a license to practice physic or surgery," Act of 1827, Sec. 21]. Subsequent to this time several new colleges were organized, which, in their charters, obtained the

right to make their diplomas licenses to practice. At the present time the diploma of every legally incorporated medical college in the State carries with it the license to practice. On the other hand, no medical college in this country or elsewhere issues a diploma which entitles its bearer to practice in this State, except with the approbation of one of the college faculties of this State. It matters not whether the candidate has drawn his inspiration from Gross or Buchanan, he must first satisfy a college faculty of this State of his fitness to practice before he can become a legally qualified practitioner in this State. As before noted, the entire responsibility concerning the qualifications of practitioners coming into the State from without the State rests with the colleges. For the assumption of this responsibility they are entitled to exact a fee of twenty dollars in each case.

Until recently there were thirteen colleges capable of exercising these powers. Of these, eight professed to teach non-sectarian medicine, located, four in New York city, one in Albany, one in Syracuse, one in Buffalo, and one in Brooklyn. Two taught homœopathy, both located in New York; two were of the eclectic persuasion, both in New York; and one, the "College of Physicians and Surgeons" of Buffalo, was a nondescript. These colleges all possess the power of granting the degree of doctor of medicine, and their diploma carries with it the license to practice in the State, after the graduate shall have complied with the registration law of 1880. The legal requirements for graduation are the same in all—namely, three years' pupilage with a legally qualified practitioner (not necessarily of this State), attendance on two full courses of lectures, the last of which in the college granting the degree, and the passage of a satisfactory examination in the seven principal branches of medical science. It is safe to say that the requirements in the matter of examination have not been identical in the thirteen institutions. As regards the regular colleges, there have been no public scandals connected with improper graduation of candidates, at least of late years. The same can be said of the homœopathic colleges, but can not be said of either of the eclectic colleges. The "Eclectic Medical College" of New York has been very strongly suspected of issuing diplomas contrary to law. Suspicion was first directed toward the other eclectic institution, known as "The United States Medical College," in consequence of the receipt by the officers of the New York County Society of a communication from the Illinois authorities asking the status of said college. The communication further stated that a person armed with the diploma of that institution had applied for a license to practice in Illinois, under circumstances that led them to suspect that he had obtained his diploma illegally. This led the officers of the society to watch the college, and, on examination, they became satisfied that the college itself was not legally incorporated, and they instituted a suit against it. The Supreme Court of the State has, within the past few weeks, rendered a decision to the effect that the college was *not* legally incorporated, and hence that none of its diplomas are legal. In Erie County the same may be said. The College of Physicians and Surgeons of Buffalo stood on exactly the same footing as the

United States College, and a similar suit against them has resulted in a similar decision from the Supreme Court. We have now but eleven medical colleges, against thirteen of a year ago. How much further the shrinking process will extend it is impossible to foresee. "The mills of God grind slowly, yet they grind exceeding small," and the profession of this county may rest assured that, if they give their officers proper moral and financial support, illegal practice and quackery of all sorts will be an exceedingly hazardous pursuit.

It may, we think, be truthfully stated that, at the present time, quackery* and unqualified practice prevail here to a less extent than in any other State in the Union, with the exception of the States of Illinois and North Carolina. On the other hand, the States in which it flourishes most luxuriantly are Massachusetts and Pennsylvania, the latter State claiming to be the banner State of the old code, while the former has a special code of its own that is, in some respects, even more stringent than that of the American Medical Association. If we turn now to the States of Illinois and North Carolina we find that in the former quackery flourished to an alarming extent just so long as the profession was actively aggressive toward sectarian medicine. As soon, however, as it joined hands with sectarianism for the purpose of putting down quackery, it then began to triumph over the common enemy. This joining of hands occurred when the Illinois State Board of Health was established, in which were representatives of the regular, the homœopathic, and the eclectic schools. In North Carolina the case was somewhat different. In that State the profession had never allowed the subject of sectarianism to trouble them very much. If a homœopath by any chance settled among them, they very sensibly let him alone. They neither persecuted nor prosecuted him. They gave him no opportunity to play the martyr, or to parade his grievances in public. We have been curious to learn the outcome of this policy, and, on inquiry, have been informed that, of fourteen hundred physicians in that State, there are but six homœopaths, and, so far as known, no eclectics. In contrast to this let us cite the neighboring county of Kings in our own State. Many years ago a gentleman of homœopathic proclivities applied for admission into the county society. He was refused membership. He carried the matter to the courts, and obtained a decision in his favor. He did not join the Kings County Society, however, as in the mean time a homœopathic society had been formed of which he became a member. By the continuance of the same policy the Kings County regulars succeeded in building up against themselves a pretty strong sectarian organization, and now rejoice in one homœopath to about every six regulars, a larger proportion of homœopaths than will be found, we believe, in any other portion of the United States. New York city has about one homœopath to ten regulars.

This digression aside, we return to the subject immediately under consideration, namely, the medico-educational status of this State. Of the eleven medical colleges, three

may be placed in the front rank as regards importance and facilities for medical instruction. Ranking with them are two colleges in Pennsylvania and one in Massachusetts. These six colleges compete for and obtain the patronage of the better class of students, the one in Massachusetts, however, possessing a higher standard for entrance than the others. One of the colleges of this State emulated the example of Harvard, and declared that it would require an examination of the student's fitness before permitting him to matriculate. This declaration was regarded by the profession at large as an indication that the faculty of the college were determined to elevate the standard of medical education in the State, and in this way contribute to the elevation and maintain the dignity and honor of the profession. We all know how the experiment terminated. After one year's trial the faculty reconsidered its resolution to require a preliminary examination, and resumed its former status. The two other colleges, however, have made some substantial advances; one of them, by enlarging its building, adding laboratories, etc., has increased its facilities for teaching, and the other has materially lengthened its lecture course. At the present time the clinical advantages, the facilities for instruction, and the quality of instruction actually given in this city, are, we believe, unsurpassed by any to be found elsewhere in this country. The other colleges in the State have, according to their opportunities, done well, and, in some respects, have shown a more progressive spirit than the metropolitan institutions.

This, then, is the medico-educational status at present. What it will be in the future it is impossible to foresee. There are evidences, however, that thoughtful minds in the profession are looking and hoping for still greater improvement. This may take the shape of a single board of examiners, or the establishment of a medical college so largely endowed that the number of the students and of graduates will not be a material factor in the requirements of the college, or possibly the State or the municipality may itself assume the prerogative, as in several European countries, of educating those who aspire to be physicians. These, however, are questions that do not appear to exact immediate settlement, nor is such settlement at present possible.

In our next we will consider the medico-ethical status of the profession in this State.

REMARKS ON THE GENERAL ARCHITECTURE OF THE NERVOUS SYSTEM OF MAN.

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THE second set of fibers to which I would now direct attention are of equal importance from a physiological point of view. Originating from the midst of a plexus of cells in the cortex, they accompany the commissural fibers to the point where the former diverge to the opposite hemisphere, after which a separation takes place. These fibers do not pass to the opposite hemisphere, but concentrate

* By quackery we here mean the practice of medicine by uneducated and legally unqualified persons; while by sectarian medicine, practice in accordance with some special method or doctrine.

themselves, in the region of the superior angle of the ventricle, into bundles placed in close juxtaposition, and are inserted, as a late author expresses it, like "pins in a pin-

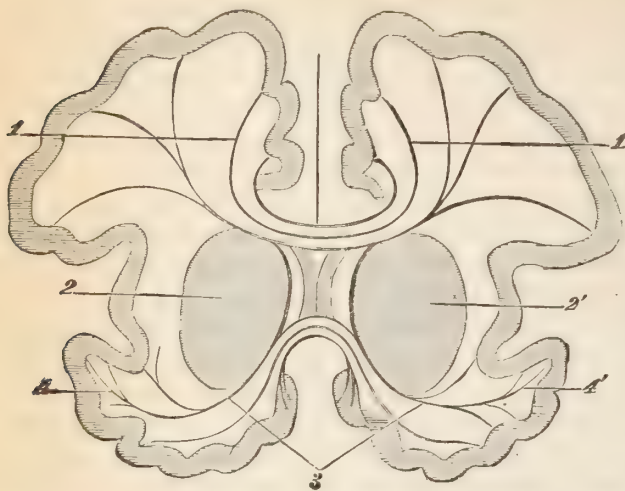


FIG. 4.—DIAGRAM OF THE COMMISSURAL FIBERS ON THE LEVEL OF THE CORPUS STRIATUM. (Luys.)

1, 1', groups of transverse fibers, one within another, continuous with those in the previous figure; 2, 2', gray substance of corpus striatum; 3, 3', groups of inferior commissural fibers; 4, 4', these curve into the shape of an S to accommodate the corpus striatum, which they help to limit externally.

cushion," into the basal ganglia of the hemisphere from whose periphery they take their origin. These are commonly called "*radiating fibers*," from an analogy between the direction which they take and the rays of light reflected from the surface of a hollow sphere. By some authors they are designated as "*converging fibers*," because they tend to become focused about the basal ganglia. By others the term "*peduncular fibers*" is employed, because they are destined to pass into the crus cerebri. By directing our attention for a moment to the fact that fibers which arise from or are distributed to all portions of the cortex are forced to make their passage from and into the spinal cord through the foramen magnum, in case they are to be distributed to parts below the head, we shall understand why they are properly converging fibers before they become collected into the circumscribed limits necessary for their transmission through this foramen of the cranium. It is important to bear in mind that *this set of fibers has nothing in common with the opposite hemisphere*. The physiological function of the radiating fibers of the cerebrum consists simply in the transmission of impulses of a centripetal and centrifugal variety from and to the cortex cerebri. It is by means of these nerves that *sensory impressions* received from without are recorded upon the sensory portions of the cortex, and *motor impulses* transmitted from the motor regions of the cortex to the muscles of the trunk and extremities. As Meynert aptly puts it, "the sensory nerve-fibers constitute the feelers of the cortical cells, the motor nerves, the tentacles, as it were."

A third set of fibers exist within the white substance of the cerebral lobes, called "*associating fibers*" ("*fibræ arcuatae*"—"collateral fibers"). These, as was the case with the preceding set, are confined exclusively to the hemisphere

in which they are found. They are supposed to be so distributed to the different portions of the cortex of each hemisphere as to act as commissural fibers for the different zones. Whether they are always distinct fibers, or simply thread-like anastomoses of the processes arising from the cells of the cortex, is not as yet fully determined. By some authors these fibers are described as dipping downward for some distance into the white substance of the hemispheres and then returning to the cortex, while others describe them as bundles of fibers of varying lengths which invest the inner surface of the cortex.

Broadbent claims to have established the existence of a set of fibers which pass from posterior portions of the cerebral cortex to the white matter of the spinal cord without traversing the substance of the basal ganglia, but the statement is not as yet fully accepted by the majority of observers.

The cerebral cortex serves as a receptacle for the various impressions of the external world, as portrayed to it by means of the nerves of sensation and the special senses. It has been considered, therefore, by Meynert as analogous to a *projection plane*, the outer world being the projected object; and the nervous system has been subdivided by the same author into three distinct members of a "*projection system*," comprising nerve-fibers and various ganglia interposed along the course of the centripetal and centrifugal tracts. The views of this author may be stated as follows:

The first member of the projection system consists of the fibers which are connected with the cortex and which terminate chiefly in the interrupting gray matter of the basal ganglia. The second member of the system comprises the fibers of the crus cerebri, which spring from the basal ganglia and end in the tubular gray substance. Most of these fibers are supposed to cross the median line to reach the opposite side of the spinal cord. The third member of the system embraces the nerves which arise from the tubular gray matter, from the point of origin of the third cranial nerves to the termination of the spinal cord.

It will be perceived that the first member of the system properly embraces the fibers of the cerebral lobes—the commissural, radiating, and associating systems of fibers. It is probable, moreover, that the gray matter of the cerebellum (chiefly that of the cerebellar cortex) is intimately connected with the cortex of the cerebrum by still another set of fibers, which constitute a distinct formation, but the ramifications of which can not be so described in this general introduction as to be easily comprehended in all of their anatomical relations.

It may be asked, "Why is there a necessity for the breaking of the nerve-fibers and the introduction of cell elements in the course of a tract which might be continuous?" "What is the object of so disturbing the simplest form of arrangement?" "What is the function of the nerve-cells so interposed?"

It is not possible, with our present knowledge, to answer all of these inquiries to our complete satisfaction. We have, however, sufficient data for the conclusion, at least, that these interruptions in the course of nerve-fibers are not solely for the purpose of effecting a simple interchange

of excitations between different groups of ganglion-cells, placed one above the other, as buckets are passed up and

form the corpus striatum); one also connected with the optic thalamus and the adjacent corpus quadrigeminum; and, finally, a bundle of fibers whose course differs from that of the others—those of the fornix. The latter appear to connect certain regions of the cortex with the anterior tubercle of the optic thalamus. It is claimed by some authors that some of the radiating fibres (those of the internal capsule of the cerebrum) are continued directly from the cortex to the crus without the intervention of ganglion-cells. The diagram now introduced will aid in following these details.

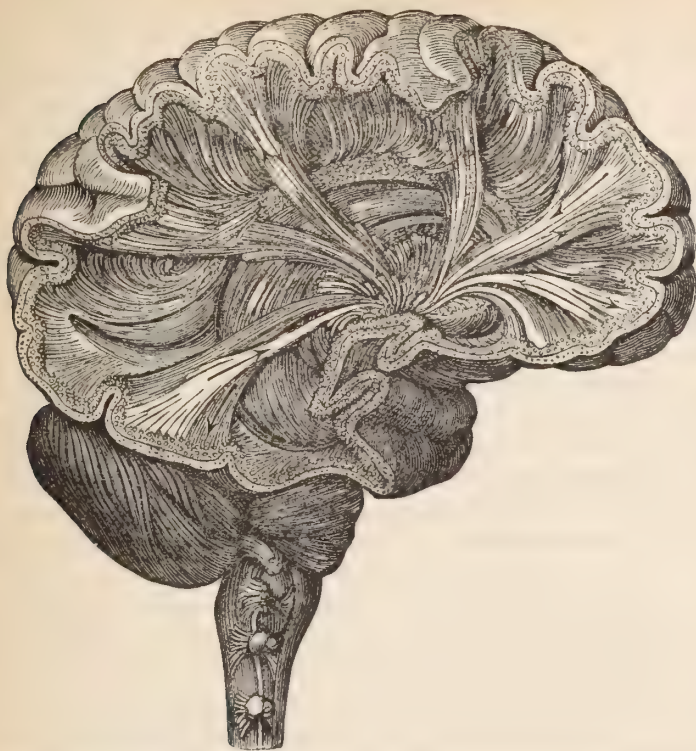


FIG. 5.—DIAGRAMMATIC REPRESENTATION OF THE FIBERS IN THE CEREBRUM. (Le Bon.)

down a ladder from hand to hand (using an illustration borrowed on account of its aptness). There is a morphological significance, not to be overlooked, in these interruptions, which can often be demonstrated. These interposed cells possess the power of deflecting the current passing along the nerves to which they are attached, as the switch is used in telegraphy and on railroads. By the use of this simple device, the centripetal and centrifugal currents may be allowed to pass without interruption when necessity demands it; or, again, the direction of the current may be changed and transmitted, through some other connection which the cell possesses by means of fibers attached to some other of its processes, to a point not situated upon the direct line of the paths of the projection-system. We have reason, also, to believe that each of these nodal masses of gray matter has an automatism of its own, by which it can influence the nerve-fibers in intimate association with it without the intervention of the larger ganglia above, which are capable of controlling it when necessary.

GENERAL ARRANGEMENT OF THE FIBERS OF THE PROJECTION SYSTEM.

The systems of fibers found in the cerebral lobes have already been discussed at some length, but certain additional facts pertaining to the radiating system remain untold. Sections of the cerebrum are of aid in mapping out various bundles into which the radiating fibers are grouped. We are enabled to determine with ease groups connected with the caudate nucleus and the lenticular nucleus of each hemisphere (the two masses of gray matter which together

form the corpus striatum); one also connected with the optic thalamus and the adjacent corpus quadrigeminum; and, finally, a bundle of fibers whose course differs from that of the others—those of the fornix. The latter appear to connect certain regions of the cortex with the anterior tubercle of the optic thalamus. It is claimed by some authors that some of the radiating fibres (those of the internal capsule of the cerebrum) are continued directly from the cortex to the crus without the intervention of ganglion-cells. The diagram now introduced will aid in following these details.

In the second member of the projection system—the crus cerebri—marked alterations may be observed, in regard to the number, course, and arrangement of the nerve-fibers, from those of the cerebrum. The actual number of fibers seems to be markedly reduced by passage through the substance of the basal ganglia. The fibers are, moreover, gathered into two bundles in the crus, whereas in the cerebrum they form several bundles before the interruption of these ganglia. The two bundles of the crus have been named by Meynert the "*basis cruris*" (the "*crusta*") and the "*tegmentum cruris*," from their relative position to each other. The fibers of the former are connected chiefly with the nuclei of the corpus striatum (as can be seen in the diagram), which constitute its crown, as it were; those of the latter with the optic thalamus and the corpus quadrigeminum. Physiologically, the basis cruris or crusta may be regarded as a centrifugal or motor

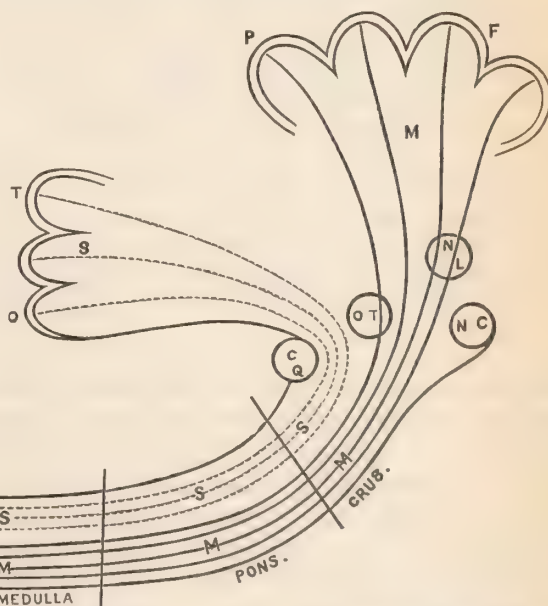


FIG. 6.—DIAGRAM OF THE COURSE OF SENSORY AND MOTOR TRACTS IN THE MESOCEPHALON AND HEMISPHERES. (Sequid.)

S, sensory tract in posterior region of mesocephalon, extending to O and T, occipital and temporal lobes of hemispheres; M, motor tract in basis cruris, extending to P and F, parietal and (part of) frontal lobes of hemispheres; C. Q., corpus quadrigeminum; O. T., optic thalamus; N. L., nucleus lenticularis; N. C., nucleus caudatus; 1, the fibers forming the "*tegmentum cruris*" (Meynert); 2, the fibers forming the "*basis cruris*" (Meynert).

tract, and the tegmentum cruris as a centripetal or sensory tract. In studying the brains of mammals, these two bun-

dles and the ganglia connected with them give evidence of an independence of one another which governs the development of each. Where the frontal and parietal lobes are large, we find the basis cruris and the nuclei of the corpus striatum highly developed; on the other hand, when these lobes are at their minimum we find the tegmentum cruris and its ganglia developed in excess. There is also physiological evidence to sustain the opinion that the basal ganglia and the two bundles of the crus are capable in themselves of executing, in response to excitation from without, all varieties of movements in an animal deprived of its cerebral lobes (above the level of the basal ganglia) with a nicety and exactness which are astonishing.

The crus suffers a diminution in the fibers of its motor bundle (basis cruris) after its entrance into the substance of the pons Varolii. This is very apparent when the large size of the tract, before its entrance into the pons, is contrasted with the small anterior pyramid of the medulla oblongata, which is its direct continuation after its exit. The explanation of this fact is as follows: All of the radiating

tem, and is endowed with some power either of control of or subtle influence over motor impulses.

If we examine a sagittal section of the pons Varolii and crura, we shall perceive that the pons performs for the cerebellum an office analogous to that which the corpus callosum performs for the cerebral hemispheres—the transmission of commissural fibers which connect homologous portions of the two lobes. We may perceive, furthermore, that these commissural fibers of the pons subdivide the fibers of the basis cruris and tegmentum cruris into smaller bundles or fasciculi. In addition, nodal masses of gray matter may be detected in both the crus and pons. It is reasonable, therefore, to conclude that the cells of these nodal masses of gray substance establish some form of communication between the fibers of the projection tracts and the commissural fibers of the cerebellum, independent of the fibers of the basis cruris which deflect themselves from the path of the projection system into its substance. The cerebellum, furthermore, has undoubted association with special fibers of the cerebrum (which are prolonged, subsequently, into the basis and tegmentum cruris) by means of two of its prolongations, viz., the *processus e cerebello ad testes* and the valve of Vieussens. The multiplicity of connections which this ganglion has with fibers of the projection system leaves its probable functions a matter of speculation. The theories advanced will merit consideration later in the course.

The ganglia of the brain have intimate relation with certain nerve-tracts which are independent of the projection system proper—viz., the fibers of special cranial nerves, which are more or less independent of the tubular gray matter. The olfactory, optic, and auditory apparatuses must be considered, therefore, as modified types of projection systems, which bear, however, striking analogies to the projection system extending to nerves of spinal origin, although possessing peculiarities of structure essentially their own. In these modifications of the general arrangement, the middle projection fibers seem to be wanting, as there is no organ which corresponds exactly with the central gray tube. Many observers, however, incline to the view that the peripheral ganglion-cells are analogous to the tubular gray matter; these consider, for example, the fibers of the optic tract as a *middle* system of projection, and the radiating fibers in the retina as the external system of projection.

The projection tracts of the crus are prolonged into the spinal cord, where they become more or less intimately associated with the tubular gray matter. The third member of the projection system exhibits an augmentation in the actual number of fibers over those found in the crus, as there can be no doubt that the total number of fibers in the spinal nerves exceed greatly those comprised in the basis and tegmentum cruris. Here, again, we have undisputable evidence that the gray matter of the cord, by means of its cell elements, serves as a means of conduction of nerve impulses, and also as a point of origin for additional nerves, whenever demanded. The fibers of the basis cruris become joined to cells in the gray matter of the spinal cord, which are connected with the *anterior* or *motor roots* of the spinal nerves (see Fig. 2). Those of the tegmentum cruris unite with similar cells which lie more posteriorly, and are asso-

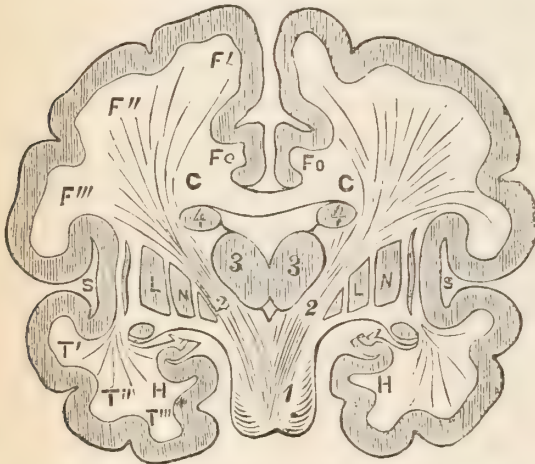


FIG. 7.—A DIAGRAM OF THE BRAIN IN TRANSVERSE VERTICAL SECTION. (Dalton.)

1, crus cerebri; 2, internal capsule; 3, optic thalamus; 4, corpus striatum; C. C., corpus callosum; L. N., lenticular nucleus; S, fissure of Sylvius; F₀, gyrus fornicatus; F', first frontal convolution; F'', second frontal convolution; F''', third frontal convolution; T', first temporal convolution; T'', second temporal convolution; T''', third temporal convolution; H, gyrus hippocampi.

fibers of the cerebrum, which become intermingled with the gray matter of the corpus striatum (the caudate and lenticular nuclei), and which escape from that ganglion as fibers of the basis cruris, are not destined to form parts of the projection system. The ganglion-cells of the basal ganglia exercise, in the case of some special cerebral fibers, the switch-like action previously referred to, and deflect the impulses, which they carry, to the cerebellum; hence, in the pons, quite a large bundle of distinct fibers leave the direct tract of the basis cruris and pass to the cerebellum (through the *processus e cerebello ad pontem*), and thus establish a communication between the cerebral cortex and that ganglion. This fact, in addition to others which will be brought forward later, leads to the conclusion that the cerebellum is, in some imperfectly understood way, brought into direct relation with the motor tract of the projection sys-

ciated with the *posterior* or *sensory roots* of the spinal nerves (see Fig. 2). The individual course of the various bundles, which help to form the motor and sensory tracts of the crus, through the medulla and spinal cord, will be described in a subsequent paper. It may be well, however, to state in general terms that each separate fiber which properly belongs to the projection tract of the crus finds its course interrupted by the interpolation of a ganglion-cell before it reaches the particular spinal nerves with the action of which it is to become intimately associated. These nerve-cells of the spinal cord explain the various phenomena which are comprised under the head of spinal automatism; since, in the beheaded animal, no other source of reflex motor action can be discovered, although its existence has been demonstrated beyond a doubt, both in animals (Pflüger) and even in man (Robin). By the interpolation of nerve-cells in the course of nerve-fibers, sensory impressions may be carried to any one of the three main divisions of gray matter, and there excite a response in the form of a motor impulse, viz., the tubular gray substance and its expansions, the basal ganglia, or the cortex of the cerebrum.

Book Notices.

A Manual of Histology. Edited and prepared by THOMAS E. SATTERTHWAITE, M. D., Professor of Histological and Pathological Anatomy in the New York Post-Graduate Medical College, etc., in association with Drs. Thomas Dwight, J. Collins Warren, William F. Whitney, Clarence J. Blake, and C. H. Williams, of Boston; Dr. J. Henry C. Simes, of Philadelphia; Dr. Benjamin F. Westbrook, of Brooklyn; and Drs. Edmund C. Wendt, Abraham Mayer, R. W. Amidon, A. R. Robinson, W. R. Birdsall, D. Bryson Delavan, C. L. Dana, and W. H. Porter, of New York. Second edition, enlarged and revised, containing two hundred and two illustrations, with an appendix. New York: William Wood & Co., 1882. Pp. xvi-490.

As the first edition of this work has already been noticed at length, it is unnecessary to examine each chapter separately. The additions which have been made to the text are not important, and will be found principally in the appendix. The present volume is most attractive in appearance, with its neat binding, clear type, and complete index. That the book has been received favorably is proved by the speedy issue of a new edition. Whatever doubts some readers may have as to its intrinsic value as a text-book "of wider scope" than the less pretentious manuals of histology, it would be most ungracious to criticise too severely the accomplished gentlemen who have given their time to its preparation. But, as a real *guide* to the student in his microscopical studies, we leave it to the judgment of the reader whether it will supplant those which are already in the field.

Without being hypercritical, we would ask whether the wood-cuts are not too diagrammatic to suit the inexperienced observer.

Not to disparage the original investigations, notably that of Dr. Warren on the fat-columns, we still insist that the book does not give the student an idea of how other men have worked to obtain the results stated, and how he shall follow in their footsteps.

With all deference to the editor, we believe that the plan which he so ably inaugurated in the first part of the book has not been carried out in the succeeding chapters. Having prepared us for a manual, we find (as he acknowledges in the preface to the first edition) that this is really a text-book. In our opinion, the bibliography at the end of each chapter is the most valuable feature of the volume, and will for this reason render it of considerable interest to the advanced student. In conclusion, we have only to add that, in spite of the unevenness which generally characterizes the work of so many different hands, there is evidence of a careful sifting process throughout. Unnecessary details are mainly avoided, and there is a constant effort to omit all that is unpractical and unproved. The best proof of the success of a book is its adaptability to the class of readers for whom it was written. Time alone will prove if we are not correct in the inference that Dr. Satterthwaite's manual will be used more for hasty reference than as a practical guide.

L'Année médicale (quatrième année) 1881. Résumé des progrès réalisés dans les sciences médicales. Publié sous la direction du Dr. BOURNEVILLE, Médecin de l'Hospice de Bicêtre, etc. Paris: E. Plon et Cie., 1882. Pp. vi-444.

THIS is a brief *résumé* of the most important advances made in medicine during the year 1881. More comprehensive in its scope than Braithwaite's "Retrospect," "*L'Année médicale*" will prove a valuable work of reference for those who have not the time for an extended search through journals devoted to special subjects. The chapters on anatomy and physiology are rather brief, the former being devoted principally to recent researches in the nervous system. General medicine and surgery are treated of at length, renal disease in particular receiving considerable attention. There is an interesting section on the localization of cerebral lesions, with special reference to the phenomenon of aphasia. Peritoneal surgery receives several pages. Ophthalmology and otology are treated of at length. Under urinary surgery reference is made to recent nephrectomies, to the Bigelow-Thompson controversy on rapid lithotripsy, and to the advisability of laparotomy in cases of rupture of the bladder. The chapter on obstetrics is largely devoted to the phenomena of pregnancy. Under operative obstetrics, the reader will note with surprise that the barbarous operation of symphyseotomy has been performed fifty times by Morisani, of Naples, forty mothers and forty-one children being saved! The chapter on gynecology is to a great extent anatomical, and is the least satisfactory in the book. Under therapeutics, prominence is given to the use of hypodermic injections of water, which are said to be efficacious in ovarian dysmenorrhœa. Resorcin is mentioned as a valuable germicide. The volume ends with brief biographical sketches of the prominent medical men of the world who died during the year.

BOOKS AND PAMPHLETS RECEIVED.

Dr. G. Beck's therapeutischer Almanach. 10 Jahrgang, 1883. Des Taschenbuches der neuesten Therapie III. Bändchen, 1. Heft. Bern: J. Dalp, 1883. 32mo, pp. 76.

Quarterly Report of Medical Officers, United States Army, with their Stations and Duties, as reported to the Surgeon-General April 1, 1883.

Fortieth Annual Report of the Managers of the State Lunatic Asylum at Utica, for the year 1882.

Seventh Biennial Report of the Board of State Commissioners of Public Charities of the State of Illinois.

Alcoholic Inebriety from a Medical Standpoint, with cases from Clinical Records. By Joseph Parrish, M. D. Philadelphia: P. Blakiston, Son & Co., 1883. Pp. 185. [Price, \$1.25.]

THE
NEW YORK MEDICAL JOURNAL,
A Weekly Review of Medicine.

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Edited by
FRANK P. FOSTER, M. D.

NEW YORK, SATURDAY, APRIL 28, 1883.

THE ACADEMY OF MEDICINE AND THE ETHICAL CONTROVERSY.

At the last regular meeting of the Academy of Medicine, held Thursday evening of last week, the President, Dr. For-dyce Barker, being in the chair, Dr. Austin Flint, Jr., moved the following resolutions:

Whereas, The New York Academy of Medicine adopted in its by-laws, as its standard of medical ethics, the Code of Ethics of the American Medical Association; and

Whereas, Each newly elected member of the Academy is required to sign its constitution and by-laws; be it

Resolved, That the Committee on Admissions is hereby instructed to report to the Academy for election as resident Fellows no physician who is known to the committee to be in opposition to the code of the Academy, and who, as a consequence, can not consistently sign the by-laws of the Academy.

Resolved, That these instructions to the Committee on Admissions be continued in force until the American Medical Association shall have modified or repealed its code of ethics, and such modification and repeal shall have been adopted by the Academy, or until the Academy shall have modified or repealed its by-laws referring to medical ethics.

The resolutions having been seconded, Dr. C. R. Agnew moved that they be laid on the table, in order that time might be given for those opposed to their passage to be notified and to have an opportunity of being present at some subsequent meeting, when they could be taken up and acted upon. It was very evident, he remarked, from the presence of a large number of supporters of the old code, that, although no notice had been given on the card of announcement that any such topic would be brought up, measures had been taken to pack the meeting.

Dr. D. B. St. John Roosa followed, with remarks in the same strain, adding that the temper of the meeting was not spontaneous, but that it had been created by a secret society that ordered its members to be present on certain occasions. Dr. Roosa was frequently interrupted by jeers and derisive laughter, which the President found it difficult to quell. After some further talk, of rather a stormy character, the resolutions were carried by a vote of fifty-eight to twenty-five, the ayes and nays being called. Dr. Flint moved a reconsideration of the vote, and Dr. J. W. S. Gouley moved that the question be postponed indefinitely. "Is it Dr. Flint's object to throttle the Academy?" asked Dr. Agnew. "Undoubtedly," replied Dr. Flint. The effect of the vote to reconsider and to postpone indefinitely is, of course, to prevent a subsequent reversal of the action taken.

The following resolution, also introduced by Dr. Flint, was then passed:

Resolved, That the Academy hereby disavows any sympathy with the action of the State Medical Society, which has put the profession of the State, through its State and county societies, in an attitude of opposition to the medical profession of the rest of the United States.

The President, Dr. Barker, the Vice-President, Dr. R. F. Weir, the Treasurer, Dr. W. F. Cushman, Dr. Roosa, and Dr. Agnew tendered their resignations, whereupon Dr. S. S. Purple said: "I hope the gentlemen have paid their dues." This was greeted with a storm of hisses. Without acting upon the resignations, the Academy then adjourned, to meet on the first Thursday in October.

The readers of this journal will remember that Dr. Austin Flint, Sr., in a letter addressed to Dr. Barker (see our issue of March 24th, p. 332), asked the following questions: "1. Is it not unwise to consider the question as settled by a small plurality of votes? 2. In a matter of such great importance, involving as it does the liability to a division of the profession into two parties, does not a sound policy dictate that there should be at least some approach to unanimity of sentiment? 3. Is it not best that those who entertain opposing views should be content to await longer deliberation and a fuller expression of opinions throughout the State, with the expectation that there will be a nearer approach to unanimity than is now apparent?" It will also be remembered that, in his reply to this letter, Dr. Barker deprecated the heated discussion of ethical questions, i. e., the only sort of discussion of such matters that it seems possible to secure at society meetings. Following the publication of this correspondence between Dr. Flint and Dr. Barker, it seemed for a time that the course they joined in advising had commended itself to the minds of those who had before been active in the sort of discussion alluded to. We can not but regard it as unfortunate, therefore, and calculated to drag the ethical discussion down again into the mire of vituperation, that the subject was brought up before the Academy of Medicine. When, on a former occasion, it was sought to bring it up in a meeting of that organization, the elder Dr. Flint saved the Academy from dissension by pointing out that such discussions could more properly be pursued in the county society—a suggestion that was hailed with acclamation by the great majority of those present, without regard to diversity of sentiment on the merits of the question. Dr. Flint's service to the profession on that occasion will not soon be forgotten. If anything could add to the esteem and reverence with which we all regard him, his action at that time would have furnished ample motive.

The Academy of Medicine is essentially a scientific body. It ought to be neutral ground in regard to the controversy which now threatens to divide the profession into two hostile camps. We see no good reason why a dignified discussion in written articles, prepared in the calmness and sense of responsibility that come to men when they sit down to address their fellows in that formal way, but which vanish at the first acrimonious word spoken in an assembly, can not yet be looked upon by both parties in this struggle as not only amply sufficient, but altogether the most likely to conduce to the speedy, orderly, satisfactory, and permanent solution of what some months ago

we characterized as the problem with which the profession in this State was called upon to deal. It has been with that feeling that we have yielded up much of our space for several weeks past to papers bearing upon the questions at issue. This we have done, although it involved postponement of the publication of a good deal of matter of a scientific nature. It is because we have been impressed with the necessity that the issues involved in the problem should be scrutinized by our readers in the light that was to be shed on them by men of diverse views, because we deprecated the snap judgment that alone has scope in extemporaneous debate, that we have followed this course. We still believe that our readers will bear with us if we continue in the same course, and we still trust that dignified and temperate discussion in print will not be thrown aside in favor of methods which, let them be adopted by whichever side they may, are far removed from what the deliberations of an enlightened and beneficent profession should be. Our columns are still open, to any reasonable extent, to calm and dispassionate statements and arguments bearing upon ethics, and we hope that the argument in favor of the old code will not be allowed to rest wholly on Dr. Flint's shoulders. Admirably as he has presented the subject, we feel that there must be others who could contribute to the full statement that seems now in every way desirable.

It is pitiable to reflect that, at the late meeting of the Academy, men who for years have labored side by side in the study of our art, each proud of the other's achievements, were so arrayed against each other that, to borrow a phrase from one of the newspapers, they seemed anxious to bring their scalpels into play in another cause than that of scientific work. We make no comment on the methods that were said to have been followed by the party that carried the resolutions. If the thing were to be done, it was but human nature to resort to such devices, although in the end such a victory, so achieved, is always apt to lead its promoters in the path of disaster. Neither do we attach any particular importance to the action taken; the resolutions simply reaffirmed a part of the organic law of the Academy. Whatever import may justly be accorded to that evening's work arises simply and wholly from the fact that it gave rise to an angry discussion at a time when moderation, charity, and a decent construction of men's views and actions are most to be wished for. It is most fortunate that, in the confusion in which the meeting became involved, the resignations that were tendered were not acted upon. Between now and October, we trust, peace and harmony will reign again within the walls that have heretofore rung to the voices of Barker, the two Flints, Agnew, Roosa, Weir, Gouley, and hosts of other tried and cherished men—in a cause how different from this unseemly wrangle!

THE MICHIGAN MEDICAL BILL.

A BILL has been introduced into the Senate of the State of Michigan, providing, as we understand, that all persons now practicing medicine as permanent inhabitants of the State shall be considered as legally qualified, that itinerant practitioners

shall pay a monthly fee of one hundred dollars, and that in each senatorial district a board of three medical examiners shall be appointed by the senator, subject to confirmation by the Governor, who, acting under and in conjunction with a central board of three appointed by the Governor, shall be charged with the duty of examining persons desirous of practicing medicine in the State (exclusive, we presume, of graduates of its own medical colleges), either as to their actual attainments or as to their legitimate possession of a diploma from an institution authorized to confer the degree of doctor in medicine.

Commenting on this bill, the "Detroit Lancet" says: "The medical profession of Michigan is far better off than the profession in any State having a law regulating the practice of medicine." And it then goes on to deprecate legislation of this sort. Now, such a law as we have outlined is by no means to be regarded as in a very high degree satisfactory, but, on the other hand, it seems to us calculated to accomplish some good, and to do no particular harm, provided, of course, the Governor and the several senators take reasonable pains to look out for the public interest in making their appointments of examiners. But the point to which we would call attention is, that medical legislation, either in Michigan or anywhere else, is not necessarily intended to be in the interest of the medical profession as a corporate body. Nor is it desirable that it should be. Ours is not a paternal Government, and God forbid that it should ever become one. The common impression is, however, that all medical legislation is set on foot either as a measure for promoting the material welfare of the profession as a whole or as a means whereby one or another of the so-called "schools" of medicine may obtain an advantage over its rivals. This impression seems to have taken a firm hold upon the legislative mind, and every legislator is prone to say to himself, whenever a medical bill comes up, "*timeo Danaos et dona ferentes*." Being thus led to look askance upon anything in the shape of proposed legislation bearing upon the status of medical practitioners, it is scarcely to be wondered at that the people's representatives in the various State Legislatures feel an instinctive impulse against favoring the passage of such measures. We can not suppose that our contemporary is ignorant of this tendency on the part of law-makers, and therefore we can only regret that its words (by mere inadvertence, we feel bound to take for granted) make in favor of the error to which we have alluded. As a matter of fact, it can not be too forcibly impressed upon the public mind, and especially upon the legislative mind, that, whenever the medical profession supports legal enactments affecting its status, it does so wholly in the interest of the community, and not for any sordid purposes of its own. Beyond its good repute, medicine has little if anything to gain by the repression of quackery—certainly no commercial advantage; and our brethren who have the ears of legislators should take pains to set us right in the matter.

THE CONNECTICUT STATE BOARD OF HEALTH.

At various times we have commended the work done by the boards of health of several of the States, notably that of

Illinois and that of West Virginia, both of which seem to have accomplished a good deal in the way of ridding their respective constituencies of the curse of charlatanism. The Fifth Annual Report of the Connecticut State Board of Health, for the year ending November 30, 1882, bears testimony that in that State also good sanitary work is being done. A handsome volume it is, of nearly five hundred pages, including the Registration Report for 1881, and we are quite sure that the expense incurred in its preparation will be made good to the people of Connecticut, with ample interest, in the way of lives prolonged and time saved that would otherwise have been lost from sickness, to say nothing of the improvement that should take place in the physical qualities of the population—results that can not but come as the direct consequence of such a general diffusion of a knowledge of sanitary science as publications of this sort are admirably fitted to secure.

The main labor of preparing this excellent report seems to have fallen upon Dr. C. W. Chamberlain, of Hartford, the secretary of the board, who, besides the general arrangement of the whole volume, has contributed interesting essays on "Milk as a Medium for the Transmission of Disease," on "Some of the Organic Impurities found in Drinking-Water," and on "Impure Ice." There are several other papers that ought to excite attention, notably Professor Lindsley's article on "The Uncertainties and Risks attending the Use of Proprietary and other Ready-made Medicines," with the sentiment of which, we may remark, we do not wholly agree, Dr. Page's paper, entitled "How can we escape Insanity?" Dr. Wilson's essay on "Epidemic Intermittent Fever: its Annual Progress in Connecticut and other parts of New England," a subject of the utmost practical moment, Dr. Lewis's "Microscopical Examination of Potable Waters in the State of Connecticut," and Dr. Cressy's admirable presentment of the subject of "Protective Inoculation."

MANUFACTURING PHARMACISTS.

In the paper from which, in the foregoing article, we have expressed our dissent, Dr. Lindsley says: "The field over which the State Board of Health has cognizance is not limited to the study of the *causes* of disease, but includes also, to some extent, the means of curing diseases and of restoring health." He then enters upon a diatribe against "ready-made medicines." "Manufacturing chemists have appeared," he says, "and are growing in numbers with alarming rapidity. Not content with supplying the non-perishable officinal preparation for which there is possibly a legitimate demand, they have presumptuously encroached upon the domain of the therapist, and boldly propose new compounds, and recommend them to physicians with instructions as to the mode of use and the maladies to which they are adapted. Then with all the art of skillful advertising they *make*, literally *make*, a market for their pretended discoveries in the art of curing disease."

Now, although "these pe prave 'ords," the indictment does not strike us as very terrible. Nevertheless, it does seem to us uncalled for as an official utterance. We fully concede that the

Board of Health of the State of Connecticut, or any other sanitary organization, has not only a right to exercise, but a duty to perform, in protecting its community against fraudulent or inert pharmaceutical preparations; but we submit that this right does not make it proper to inveigh officially in general terms against an industry that is not necessarily, or, we believe, actually, detrimental to any public or private interest.

As a matter of fact, our manufacturing pharmacists have accomplished much for which the profession in general is quite ready to acknowledge its indebtedness; they have helped materially to carry the fame of American excellence in pharmacy abroad, as may be seen from the repute in which their preparations are held in Great Britain and in various other foreign countries. And, with all this, we have yet to see any evidence of their having worked an injury to the apothecary. Even taking the recent strictures of one of our contemporaries upon the quinine pills provided by some makers as founded on data strictly accurate—and it should be borne in mind that the accuracy of those data is questioned—who can suppose that the extemporaneous dispenser, who is called upon to make up a lot of pills according to a magisterial prescription, working hurriedly amid the customer's manifestations of impatience, will turn out work that can be more depended upon for uniformity than that which is produced on a large scale by skilled manipulators?

The American people have always resented pulpit interference with their temporal affairs; let the profession of medicine, in like manner, decline to sanction all official scolding in their name, especially when the occasion is so slender as in this instance, however many there may be who look back with regret upon the days of bulky and nauseous compounds.

THE "INDEX MEDICUS."

WE trust that few, if any, of our readers need to be told that the "Index Medicus" is a monthly journal devoted solely to bibliography. We regret to learn, however, that the profession need to be reminded that they have not yet given the "Index" that amount of practical support that is required to meet the expense involved in its publication. Being, so far as we know, the only medical journal of its kind in the world, and being in every way creditable to its editors and publishers, it certainly seems as if it ought to be a necessity to all who occupy themselves with medical writing or with research in current medical literature. We therefore trust that before long its support will be so increased as to put its continued publication beyond doubt.

Proceedings of Societies.

NEW YORK SURGICAL SOCIETY.

(Concluded from page 442.)

In the discussion* that followed the reading of my paper, Professor Henry H. Smith stated that he was not aware that any doubt existed among surgeons of the present day as to the advisability of ligating veins, although he was of the opinion that a diseased vein—e. g., varicose—would be apt to give trouble

* See "Philadelphia Medical Times," 1882, p. 664.

under conditions in which a healthy vein would do well, citing a case in which varicose veins of the legs were tied, and death ensued in five days.

Professor SAMUEL D. GROSS said that he had long been in the habit of ligating veins, and early in his professional life was impressed with the fact that the fear of such ligations was unfounded. He was opposed to lateral ligation, and thought it always best to tie the vein in its continuity. Varicose veins he would not ligate, nor would he excise an exposed vein, unless it could not be avoided. Professor S. W. Gross stated that he was now cognizant of sixty cases in which the internal jugular vein had been tied; forty-seven of these were examples of ordinary deligation, of which one terminated in death by thrombosis; thirteen were instances of the application of a lateral ligature, of which four proved fatal from secondary hæmorrhage. The freedom from hæmorrhage after the ordinary procedure and the occurrence of fatal bleeding in more than one third of all cases after the lateral ligature were sufficient grounds for its exclusion from practice. He believed that veins may be ligated with as much confidence as arteries.

Dr. PACKARD stated that, in his experience, whether in cases under his own care or in the hands of other surgeons, ligation of veins had been attended by no bad results. Dr. Hunter stated that Dr. Agnew had ligated the internal jugular vein at its point of emergence from the skull, the ligature coming away at the end of the second week without unfavorable symptoms. Dr. Blackwood had seen during the war many cases of gunshot wounds of the vessels of the neck; whenever lateral ligation had been used, in the cases in whose after history he had been able to follow, a fatal result from secondary hæmorrhage had ensued. He had no fear in ligating veins, though he agreed that diseased veins do not bear ligation like healthy ones.

Dr. NANORÉDE reported a case in which he had been compelled to keep the internal jugular vein exposed for a long time in an operation which was followed by prolonged suppuration, during which the vein was kept bathed in pus, without injury to it. He never hesitated to tie veins in the course of operations.

Dr. ALLIS had applied a lateral ligature to a wounded internal jugular vein, and had obtained rapid and permanent recovery. Dr. Parkes, of Chicago, had seen lateral ligation used in three cases of wounds of the internal jugular vein, with recovery in each case; while in one case, after complete ligation, death was occasioned in thirty-six hours from thrombosis.

Dr. KEEN could not agree with previous speakers as to the inadvisability of operating upon diseased veins. In varicose conditions he had several times exposed and ligated the veins at points one inch or more apart, and executed the intervening portion by the antiseptic method, and with excellent results. In his opinion the ligation of varicose veins by the catgut ligature was the best treatment.

It will be seen that the points upon which discussion was elicited involved the subjects of the safety of ligation in general, the propriety of the application of a lateral ligature in certain cases, and the effects of exposure and denudation of veins. Despite the freedom from disaster which had characterized the large experience of the eminent surgeons who took part in this discussion, and which, thus far, has likewise been enjoyed by myself, I am not quite prepared to dismiss as without foundation the opinions of the many other eminent observers who declare that surgical interference with veins does involve peculiar dangers. While so strongly expressed an opinion as that of Chassaignac, that "ligation is one of the most dangerous operations of surgery" (*Traité clin. et prat. des opérat. chirurg.*, t. i), may not appear to be justified, or even that of Erichsen, that the application of a ligature to a vein "should, if possible,

always be avoided" (*"Science and Art of Surgery,"* 1878, vol. i, p. 278), it is still undeniable that there are special hazards that attend the surgery of the veins. "The fatal catalogue of tied veins," referred to by Travers, the yearly deaths from inflammatory complications following phlebotomy, admitted by Trousseau, and the fatal cases of thrombosis reported by Ollier, remain each as types of a distinct class, to which fresh examples are from time to time being added of dangers that are peculiar to veins, and which ought, even in this day, to receive due attention from surgeons. The direction of the blood current in the veins toward the heart, through continually widening channels, and the favorable arrangement of the connective-tissue sheaths of the veins for the propagation along the course of the veins, as in lines of least resistance, of spreading suppurative inflammation, constitute the conditions which by their combination favor the production of disastrous complications after wounds of these vessels. The more accurate knowledge which recent research has given us of the etiology and pathology of these complications has made more emphatic the truth that, in addition to the predisposing causes, both local and constitutional, that may exist, the introduction of a continuously active irritant from without through a wound is essential to the establishment and extension of the morbid processes. Here we venture upon a field which is becoming yearly less and less debatable—that is, the agency of micro-organisms in the production of spreading inflammation. The differences in the intensity of the results of these agents in different cases seem to be due to differences in the resisting power of the tissues to which they gain access. The presence of defective resisting power gives a ready and sufficient explanation why, in persons depressed and enfeebled from any cause, a wounded vein should be more likely to give trouble than in the robust and vigorous. Also, it explains why the nutritive defects in the tissues that lie about varicose veins should be sufficient to render operations upon such veins extra hazardous. An important consideration in this connection, also, is that, in most instances, the resisting power of the tissues, though diminished, would still be sufficient to resist attack and accomplish repair without serious complication, if they were not submitted to extensive and repeated traumatism. Thus, from the point of view of the relation of micro-organisms to wound disturbances, the conclusion forces itself upon the conviction of the observant surgeon that in all cases care should be taken that a minimum of traumatism should be inflicted upon veins and their ensheathing connective tissue. Particularly when adequate measures to prevent the access of noxious micro-organisms are impracticable does the importance of fostering the natural resisting power of the tissues demand recognition. If the tissue conditions which attend varicose veins be taken as an example of a vulnerable tissue, it is easy to understand why so frequently disastrous consequences have followed operations upon them conducted without antiseptic precautions, and why, with such precautions, such disasters rarely, if ever, occur. In such procedures as the strangling of a varicose vein between an unirritating metallic pin inserted behind it and a compress laid over it upon the surface of the skin, or the subcutaneous injection into the neighborhood of the vein of a substance capable of exciting a local adhesive inflammation in the tissues reached by it, the two opposite conditions of wound treatment are exemplified: In the one, no protection from hurtful atmospheric constituents, but a minimum of local tissue irritation; in the other, a maximum of local tissue traumatism with exclusion of atmospheric germs. It is to be expected that excellent results should attend either method, though both are imperfect in their conception, and both more hazardous than methods in which the two conditions are combined—that is, methods by which both exclusion of noxious micro-organisms

is secured and a minimum of local tissue traumatism is produced.

The question of the relations of micro-organisms to the effects likely to follow involves, in addition to these differences in local tissue vulnerability exemplified in the case of varicose as compared with sound veins, the different constitutional susceptibility possessed by different individuals to the effects of micro-organisms, as Ogston ("British Medical Journal," March 12, 1881), when injecting micrococcus pus into the tissue of mice, found that though the same dose was injected into each of a number of mice of the same litter, the effects greatly varied—one, perhaps the largest and strongest, escaping unscathed, or with but slight illness. In others, abscess developing; in some, necrosis; and in one, perhaps the smallest or most weakly, death from septicæmia. So also with the same amount of traumatism and the same exposure to the access of micro-organisms in operations involving veins, the most diverse effects may result in different individuals, though in all, whatever perturbation in the normal process of repair may have been present, the cause has been the same—poisoning by micro-organisms.

I will take the liberty of citing, as well illustrating the most grave consequences of poisoning by micro-organisms following operations upon veins, the case of operation for cure of an arterio-venous aneurysm which was reported to this society, April 26, 1881, by Dr. E. L. Keyes ("Va. Med. Month.," Dec., 1881). The patient was described as having been anæmic, and possessed of a low degree of vitality. The operation, at Bellevue Hospital, was difficult and prolonged; at its close there was a ligature upon the peroneal, upon the posterior tibial, upon the popliteal, and upon one other vein, while the aperture of the anterior tibial vein was occluded by a sponge saturated with a solution of subsulphate of iron. The patient rallied slowly from the ether, the wound did not granulate, but assumed first a dry pink, then a moist gray appearance, with some colored serum shortly before death. Forty-two hours after the operation there was a slight chill, followed by a condition of torpor, physical depression without delirium, terminating in death sixteen hours later. Just before death the temperature was found to be 105°25° F.

What was the source of the poison that so speedily overwhelmed this patient and prevented even local reparative effort? No microscopical examinations of the tissue of the wound site in this case are recorded, but observations of similar cases by other observers (Ogston, *loc. cit.*, and, also, "Journal of Anatomy and Physiology," vol. xvii, p. 49), and experiments upon animals, have demonstrated that in such cases the wound tissues are infiltrated by enormous and appalling growths of micrococci. The poisonous ichor or ptomaine, the chemical resultant of the decomposition induced by the proliferating micro-organisms, is produced in quantities measured only by the activity of the growths of the micro-organisms, and is absorbed rapidly into the blood, and in such amount that but a few hours are needed for such a degree of blood poisoning to be effected that death is the result.

The case in question is seen to have had, in an unusual degree, all the conditions needful for the development of the greatest activity of invading micro-organisms—general resisting power at a low ebb; local tissue resisting power undermined by previous disease; traumatism great and prolonged; a hospital atmosphere likely to contain active germs. It is obvious that, in other cases in which less favoring conditions exist, every gradation, both of the local and general toxic manifestation, may be produced, so that in slight irritation and transient fever, in phlegmonous inflammations, early bounded by the formation of a wall of granulation tissue, in diffuse inflammation with spreading gangrene and advancing venous thrombosis, as well as in

the instance in which profound and rapid general intoxication is produced, with but slight local symptoms, we have an expression of the result of the same disturbing agent. While it is true that the development of these effects does not necessarily depend upon the presence of veins in the wounds thus attacked, yet a frequent connection between veins and the more severe grades of this tissue poisoning results from the readiness with which the connective tissue which ensheaths the veins permits the progressive invasion of micro-organisms, and from the fact that the resulting periphlebitis determines the formation of coagula in the involved vein which, in their turn, are likely to be speedily invaded by micro-organisms and become converted into poison depots, from which ptomaines, pus, and emboli are discharged directly into the circulation.

The question whether the application of a ligature to a vein is in itself the source of any additional hazard in any given case becomes susceptible of a more definite answer in the light of the more definite knowledge to which we have attained as to the pathology of the disturbances which complicate wounds. It has been seen to how different a conclusion a simple appeal to experience has led different observers, these conclusions varying from the extreme represented by Gross, that "the danger of ligating veins is in great degree if not entirely unfounded," to that represented by Chassaignac, that "ligation is one of the most dangerous operations of surgery." A more satisfactory result will be reached by an analysis of the particular conditions which the presence of a ligature upon a vein introduces into a wound, and by a consideration of the effects of such conditions upon its repair.

The introduction of the antiseptic animal ligature has modified so greatly the conditions which attend a ligature, in those cases in which it is used, that a discussion of the effects of the ligature demands a separate consideration of the simple unprepared thread and of the antiseptic animal ligature.

The doctrine that the tunics of a vein possess a special intolerance, that renders them liable to destructive inflammation more quickly and upon less irritation than other tissues, has received abundant refutation, and deserves mention simply as a matter of historical interest.

The effect of the mere constriction of the vessel by the ligature does not introduce new dangers into the wound. What these effects are, the use of antiseptic ligatures has enabled us to determine, and their discussion will be in order more particularly in connection with the consideration of the effects of such ligatures. It is, therefore, among the indirect effects of a ligature that conditions of importance, if there be any, are to be found. These indirect effects are purely those produced by the prolonged sojourn of the ligature in the tissues. Whenever the traditional ligature is applied, the constricting thread is an irritating foreign body in the wound, and invariably excites along its track an inflammation which persists until its removal is permitted by the division, by ulceration, of the walls of the constricted vein—a period of time extending upon an average from one to two weeks, according to the size of the vein. By preventing union by first intention, the ligature favors the entrance and development of atmospheric germs during the entire time that it keeps the wound open; and, saturated with the secretions of the suppurating sinus which it creates, it becomes the best of mediums for transmitting micro-organisms to the deepest part of the wound. The irritation of its presence puts an additional strain upon the resisting power of the tissues among which it lies, and to this extent lessens their ability to resist the invasion of the micro-organisms that may at any time find access to them.

The result of a failure of the tissues to resist such invasion of micro-organisms has already been dwelt upon, and the rela-

tion of cause and effect which they bear to diffuse periphlebitis and to septicæmia shown.

The conditions thus enumerated which attend the presence of an ordinary ligature, when viewed in the light of present knowledge as to the agencies by which wound disturbances are caused, certainly justify a dread of ligation as a hæmostatic agent in venous hæmorrhage, and make more emphatic the cautions as to its use. That in the great majority of cases the amount of disturbance resulting from the ligature should be limited to a circumscribed inflammation which simply mats together the tissues adjacent to the ligature, is but another evidence of the extent of the natural resisting power inherent in healthy living tissues. It is in those cases in which defects of resisting power exists, as notably in tissues whose nutrition has been interfered with by the varicosity of their veins, that the full effects of the conditions determined by the ligature would be developed.

But these considerations as to the source of wound disturbance, and their relation to serious complications after vein wounds, show the importance of eliminating them, not only in cases where veins already diseased exist, but also in all cases in which vein wounds demand special means for the control of hæmorrhage. The importance of protecting such wounds from further irritation, and from becoming the seat of multiplying micro-organisms, makes of great importance the search for a substitute for the ordinary ligature.

The acupressure of Simpson and the forcipressure of Péan both present great advantages over the common ligature as methods for controlling venous hæmorrhage, and few conditions will be found in which one or other of them may not be substituted for the ligature. The retention of the compressing needle or forceps is rarely necessary for a longer period than a few hours. Their smooth metallic surfaces do not irritate the wound, and their early withdrawal removes any obstacle to union by first intention that they might possibly have caused during their residence in the wound. In my paper of last year, already referred to, I reported a case in which permanent closure of a lateral wound in the internal jugular vein was accomplished by the application of a hæmostatic forceps, and its retention for a little more than twenty-four hours. In most cases, as in wounds of veins in the axilla or in the neck, in operations in those regions I have been able to remove them in a much shorter time.

In dealing with wounded veins, as acupressure needles and hæmostatic forceps excel the ordinary ligatures, so they, in turn, are excelled by the animal ligature and the antiseptic methods by which, with a perfect hæmostatic, easily and universally applicable, that provokes no irritation by its presence in the tissues, and that is spontaneously removed by absorption when no longer needed, security is also guaranteed against the access of micro-organisms that might disturb repair. By the use of the antiseptic animal ligature it becomes possible to avoid the sources of disturbance that have thus far been recognized in wounds involving veins, and thus to banish almost completely inflammatory and septicæmic complications from the phenomena that attend the ligation of veins.

But one possible objection presents itself to the use of an unirritating absorbable thread—viz., that its application may not be sufficient to provoke the effusion of the amount of plastic material necessary for securing the permanent adhesion of the vein walls at the point of constriction. Such an objection, however, has not thus far been supported by clinical experience. In connection with this, experience and experimental inquiry into the method by which obliteration of a vein is accomplished without the aid of a thrombus or of an irritating ligature would be of importance. For the purpose of such a study I made a number of experiments during the past year upon goats. These

experiments included three ligations of the internal jugular vein and two of the femoral vein. I was assisted in them by my friends, Drs. Fowler, J. H. Hunt, and J. E. Pilcher. Antiseptic catgut was used as the ligature in each, and the operation was done with antiseptic precautions. Union by first intention of the operation wound was secured in each instance. As the result of these operations, I secured specimens illustrating the condition of repair upon the second, fourth, ninth, fourteenth, and twenty-fourth days after ligation. These specimens were prepared for microscopical examination by Dr. Hunt, who made sections of the frozen fresh specimens, which were then stained with hæmatoxylin and eosine, and mounted in damar. In the interpretation of these preparations I have been able to obtain the skilled opinion of Dr. E. O. Shakespeare, of Philadelphia, who finds that in them the tissue cells of the tunica interna are seen to have undergone marked proliferation, the activity of this proliferation being greater as the point where the vein walls are constricted and approximated by the ligature is approached. By the accumulation and confluence of the mass of cells in the cul-de-sac, formed by the vein constriction, obliteration of the lumen of the vein is accomplished, this obliteration being perfected and made permanent by the subsequent extension of capillaries into it, and its transformation into connective tissue. Reference to these experiments, together with diagrams illustrating this proliferation of the tunica interna, will be found in a report of the lecture of Dr. Shakespeare, on "Inflammation in the Blood-vessels," delivered before the College of Physicians of Philadelphia, 1882, and published in the "Medical News," May 20, 1882, p. 539.

In none of these experiments did a thrombus form on either side of the ligature except in one case, in which, after having applied one ligature, I applied a second one to the swollen vein above, a little more than an inch distant. The part of the vein between the two ligatures having been left filled with blood, I thus obtained a thrombus. This specimen was removed on the ninth day. It seemed to illustrate the conditions of repair in the absence of a clot on the one side of the ligature, and in its presence on the other side. On this latter side the clot has simply seemed to be an unirritating injecting material by which the vein is distended and the study of the conditions presented by the vessel is facilitated, without otherwise modifying the character of the reparative process. The clot plays here, as in any other wound in which blood has been effused, and in which it has been protected from the access of destructive micro-organisms, simply the part of an unirritating foreign substance, mechanically distending the parts among which it is diffused, until it shall be invaded and appropriated by active cells from the adjacent tissue.

The ligatures still remained unchanged in all the specimens, the chromic gut, which was used in the first two experiments, and the long-kept carbolized gut (three years in carbolized oil), which was used in the last three experiments, not being readily acted upon by the tissues. Though the ligatures were thus made less absorbable, the tissues in which they were imbedded showed no irritation from their presence.

A plain conclusion from these considerations as to the character of the process determined by the application of a ligature to a vein, is that the obliteration of the lumen of the vessel is a secondary effect of reparative changes which have, as their first object, the restoration of functions in parts whose nutrition has been disturbed by the original application of the ligature. The simple fact is that the agent which has disturbed the nutrition of the tunica interna, and provoked a more active metamorphosis and proliferation of its cell elements, has at the same time held the vein walls in coaptation until the confluence of the plastic material from the constricted vein walls has be-

come sufficient in amount and tenacity to permanently unite them together. Essentially, the process is that of the formation of a cicatrix, and in its course the ligature plays the same part as does the suture in ordinary wounds—that of maintaining coaptation of the wounded structures until firm adhesion is secured. We see in this, also, the same process as that by which a simple lateral slit in the vein wall may be repaired without obstruction to the current of blood through the vessel, and the edges of the slit themselves furnishing the material for its repair, the amount of which material, if only further irritation or traumatism be withheld, being strictly limited to the reparative needs of the injured structures.

These conclusions as to the process of repair after ligation of veins with unirritating ligatures find an important practical application in the consideration of the propriety of substituting a lateral ligature, or a lateral suture, for ligatures encircling the entire vessel in the treatment of wounds involving but a portion of the side walls of a great vein.

It will be remembered how positive was the condemnation of the lateral ligature expressed both by Professor S. D. Gross and by Professor S. W. Gross in the Philadelphia discussion. I find that Malgaigne (*"Médecine opératoire,"* ed. 1861, p. 114) also strongly condemns it, saying that "the lateral ligature will be an operation for ever to be condemned," and that "for very extensive wounds of venous trunks, where compression is insufficient, the *only* resource is the ordinary ligature." Malgaigne's objection, however, was founded on the erroneous idea that permanent hæmostasis after a vein wound depended upon the formation of a clot sufficient to occlude the entire lumen of the wounded vessel, and that, inasmuch as the lateral ligatures in some cases might fail to provoke the formation of such a clot, in such cases, where the ligature came away, secondary hæmorrhage would be inevitable.

The objection of Professor Gross is based upon the statistical statement that, of thirteen instances in which the lateral ligature had been applied, four proved fatal from secondary hæmorrhage, a source of danger of rare occurrence when a vein is ligated in its continuity. Such a record of disasters, in his opinion, outweighs any advantages that might be supposed to be gained by lateral ligatures, and makes its use unjustifiable.

It is to be borne in mind, however, that this record of disasters is a record of results from the use of the ordinary ligature. Reference to what has already been said as to the conditions which the use of such ligature introduces into the repair of a wounded vein will be found to give ample explanation of the frequency of secondary hæmorrhage after its use as a lateral ligature. The introduction of the antiseptic animal ligature, however, which may be cut short, and over which speedy union of the wound by first intention may be secured, places the subject of lateral ligature upon an entirely different basis. The tissues of the puckered side wall of the vein, where they are grasped by the ligature, are placed in the same condition as that already described as characterizing veins ligated in their continuity. No thrombosis is required, nor formed, by its insufficiency or its disintegration, to become a source of danger. There is no ulcerative process to extend unduly and to leave an opening in the vein wall when the ligature comes away. That the process of the formation and complete organization of the plastic material that fills in and effaces the irregularity produced by the application of the ligature should proceed undisturbed to its conclusion, demands simply that the general precautions for securing wound repairs are observed. The ligature acts as an unirritating re-enforcement that prevents the rupture of this new tissue during the yielding period of its history, and itself finally is disintegrated and is removed in the ordinary tissue changes of the part. Practiced with the antiseptic animal

ligature, lateral ligature, therefore, promises to be a justifiable and valuable means of treatment in wounds of the lateral walls of veins.

Lateral suture suggests itself as a resource in long linear wounds of the side walls of large veins. It would be simply a modification of the lateral ligature, and the same considerations would be applicable to it. I believe it to be practicable, and can conceive of conditions in which it would be a resource of great value.

Dr. Post remarked, concerning the ligation of veins in stumps after amputation, that he had been accustomed to do so without hesitation, and had not known any injurious consequences to follow. He had had one case in which he tied the primitive carotid artery for a large telangiectasis involving one side of the face. The patient died with symptoms of pyæmia. Although the jugular vein was not exposed, there was found at the autopsy thrombosis of that vessel and embolic inflammation of the lung. The vein also contained a phlebolite. He had also met with one fatal case of phlebitis following the use of pins in the treatment of varicose veins of the thigh.

Dr. GERSTER had applied the lateral ligature to the internal jugular vein in a case of multiple lymphoma of the neck. A row of catgut ligatures was applied to a longitudinal slit, and primary union followed the operation. He had also ligated the internal jugular vein in the course of exsection of tumors of the neck in four instances. In some of these cases he applied simply a double ligature. In two instances, however, he was obliged to exsect considerable portions of the vessel, and in one case death followed exsection very shortly. The case was one of those where it is impossible to determine whether death was caused by incipient acute septicæmia or shock. Post mortem was made, but it did not reveal any positive evidence as to the cause of death. The central portion of the vein did not show any septic changes which could serve to explain the termination of the case.

In one case he had exsected a very large venous plexus, situated near the scroto-femoral fold, mainly on the inner surface of the thigh, in a powerful young baker, who was prevented from attending to his daily business on account of the severe pain which the growth produced. It was a convolution of varicose veins, some of them very large, covering an area of about ten square inches. In that case he removed the entire mass, and proceeded as in the exsection of a very vascular tumor, applying double ligatures, about sixty in number, and cutting the vessels between them. Some of the branches of the vessels penetrated through the fascia into the muscular structure, and were removed with portions of connective tissue and of muscle *en masse*. Union by first intention occurred in this case, and no further trouble was experienced. The chromicized catgut ligature was employed.

Dr. LANGE referred to a case already reported to the society, in which he applied the lateral ligature to the internal jugular vein, accidentally opened in the attempt to tie the common carotid artery for secondary hæmorrhage. In that instance air entered the vein. The ligature used was antiseptic silk. Recovery took place, and he subsequently presented the patient to the society.

VESICAL CALCULUS WITH A PIECE OF SILVER WIRE FOR A NUCLEUS.—Dr. J. C. HUTCHISON presented a vesical calculus removed from a boy fifteen years of age, and upon whom he had operated ten years ago for stone in the bladder. The first operation was that of median lithotomy, in which he wounded the rectum; a rectal fistula followed, and continued up to the time of the second operation. He made several attempts to close the fistula, twice by inserting silver-wire sutures, two or three times by touching the margins of the fistulous opening

with nitric acid, but in all instances unsuccessfully. The last attempt to close the fistula by sutures was about a year and a half ago. The case was left under the charge of the house surgeon, who was requested to remove the sutures at a certain time, and he did so. The boy, however, was never comfortable after the operation, but always complained more or less of pain in the bladder. The urine continued to pass through the rectum, but the opening was very small. On the 1st of February last Dr. Hutchison examined the bladder very carefully with the sound, symptoms of stone having presented themselves, and detected a calculus. On the following day he performed the medio-bilateral operation, and found the stone adherent to the posterior part of the bladder so firmly that he was unable to detach it with his finger, but, by taking a piece of flexible wire and making a loop, he was able to remove it. On examining it, he found the nucleus was a piece of silver wire.

The interesting features in the case were, first, the wound of the rectum, not a common accident in lithotomy; second, the difficulty in closing the fistula; third, the accident of dropping a suture into the bladder which formed the nucleus of the calculus; fourth, the difficulty of detaching the stone from the wall of the bladder at the time of the operation. After the last operation the perineal wound was kept open for twelve days, and the edges of the fistula were again touched with nitric acid. The wound was kept open by introducing a catheter through it, allowing the tip of the instrument to remain just in the neck of the bladder, pushing it forward occasionally to withdraw the urine. This was done with the hope that the fistula might close, and he was of the opinion that union had taken place.

Dr. Post mentioned that Dr. Kearny Rogers operated a large number of times for vesical calculus, and frequently wounded the rectum, but no bad results followed in any of his cases.

Dr. BRIDGON remarked that wounding the rectum was not so infrequent as was generally supposed. It had occurred once to him in eighteen lithotomies.

The PRESIDENT remarked that wounding of the rectum with the median operation was quite unusual. He had operated by the median operation some thirty-four or thirty-six times, and had never had an accident of that kind.

Dr. HUTCHISON remarked that this was the only case in which he had performed the median operation.

OSTEO-SARCOMA OF THE THIGH.—Dr. Post remarked that an interesting feature in the case which he reported at the last meeting was that a week after the operation there was an active pulsation in the femoral artery from the groin downward to the point where the vessel bifurcates. Below that point, the patient's limb being very thin, he was able to trace the vessel distinctly as a hard cord, nearly as large as the little finger, and evidently filled with a coagulum.

A STATED meeting was held March 13, 1883, T. M. MARKOE, M. D., President, in the chair.

SUTURING OF THE DIVIDED ENDS OF EXTENSOR TENDONS IN THE FOREARM.—Dr. F. LANGE presented a lady patient who, about two months ago, fell from a considerable height, and struck against a china umbrella stand, cutting the tendons of the extensor muscles of the left forearm. He saw the patient two weeks afterward, when the wound was almost healed, and there was extensor paralysis involving the third and fourth fingers, only the last two joints moving through the action of the interossei. About four weeks ago Dr. Lange made a longitudinal incision, and found that three of the extensor tendons had been divided, namely, those belonging to the third and fourth fingers, and to the index finger. The extensor indicis proprius was not injured, for the action of the index existed.

The divided tendons of the extensors were separated to a distance of almost one inch and a half. They were brought together and sutured with antiseptic silk. The hand was then put in a position of superextension, and an antiseptic dressing applied. The sutures were removed at the end of one week. The result was that the movements of the fingers could already be quite satisfactorily performed, and it was probable that improvement would still continue.

SUPRA-CONDYLOID FRACTURE OF THE HUMERUS WITH INJURY OF THE MEDIAN NERVE. **OPERATION.**—Dr. LANGE also presented a girl eight years old, who, in August last, received a supra-condyloid fracture of the left humerus from a fall of three or four feet, and striking the arm against a beam. A dressing was applied, which she wore for some time, but during the third week, according to the mother's statement, painful contraction of the fingers and wrist occurred. At that time forcible tractions seemed to have been made, but the pain did not cease, neither the contraction, but, on the contrary, the hand became more and more contracted and paralyzed, and finally quite useless. From the time of the receipt of the injury she had complained of some pain at the site of the fracture. She came to New York about the middle of December, at which time the wrist and fingers were flexed to their utmost, and the movements of the fingers were very slight indeed. Only slight movement of the first phalanges and of the wrist could be made. Every attempt to stretch the parts was followed by intense pain, especially at the site of the fracture, where there could be distinctly felt a sharp protruding edge of bone, and between the fragments there seemed to be a sensitive cord which Dr. Lange thought might be the median nerve, but this subsequently proved to be an erroneous assumption. The movements in the elbow joint were restricted to an angle of about twenty degrees. There was paralysis of sensibility in the region of the median and the radial nerves and entire absence of electric irritability. Dr. Lange recommended at first electricity, massage, and active and passive movements. This treatment was given for about six weeks, at first with some marked success. After several weeks, however, the progress ceased, and the pain at the site of the fracture persisted. Dr. Lange then proposed an operation, assuming that the nerve at the point of fracture was irritated by the callous and adhesions, and at that time Dr. Sands saw the patient in consultation and approved of the proposed procedure. About four weeks ago Dr. Lange cut down on the inside of the elbow joint against the protruding fragment, and found the following relations: The median nerve ran in front of the sharp edge of the bone in an angle, and at that point was somewhat flattened. Above that point it was somewhat swollen and thickened. The spindle-like swelling which he felt before the operation was a mass of muscular fiber belonging to the brachialis internus. He loosened the nerve, excised the protruding fragment of bone, and since that time there had been decided improvement, both with regard to the facility of movements of the fingers and the use of the hand. The strength of the muscles which are supplied by the median nerve had not improved very much, and yet it seemed as if the cramped condition which existed in the flexor muscles was steadily decreasing. It seemed, also, that the extensor muscles had become more active since the operation. There was one interesting point, namely, that since the operation an entirely different and more normal form of nail was growing, and there were ridges on all of the nails alike, marking the parts of the nail before the operation from those after it. The color and temperature of the skin had also markedly improved. Having been of a pale bluish before the operation, it was now of a more rosy tint. The temperature of the hand had become normal.

Dr. C. T. POORE then read a paper entitled *SOME EXPERIENCE IN EXCISION OF THE HIP JOINT*. I do not think that I have anything new to offer in regard to excision of the hip joint. The object of this paper is simply to call out discussion.

As far as my experience goes, suppurative disease of this joint has its origin in an osteitis, or osteomyelitis, as it is sometimes called, of the head of the bone, the articular cavity being involved secondarily. This paper is based on the experience in eighteen cases of excision occurring among the poorer classes and in hospital practice. They are not, therefore, to be compared with cases occurring among the better classes.

Ten cases occurred in girls and eight in boys; the youngest was two and a half, the oldest was fourteen years of age. The disease had lasted for from two to sixteen years. Many of the patients had been under strict mechanical treatment from one to four years without any effect on the course of the disease. Abscesses continued to form and discharge, so that in not a few patients the thigh and gluteal region were riddled with openings, from which pus continually flowed, while in others only one opening had formed. Excision was performed in all cases in the same way, with a long incision over the trochanter major. The tissues were separated from the bone and the head was removed, in thirteen cases above the trochanter minor, and in five below that point; in four cases, after some months the end of the femur was excised.

The pathological conditions underlying the external symptoms mentioned above were as follows: In seven cases the disease was confined to the head of the bone, the shaft appearing healthy. In all these cases the cartilage had entirely disappeared, and in most the head was represented by tubercles, or lay loose in the cavity of the acetabulum. The shaft was diseased in eleven cases. By this I mean that the central cavity was enlarged at the expense of the compact tissue, so as in many cases to admit the finger. The external shell had in many places a worm-eaten appearance. The bone was of dark color, and so soft that a probe could be easily made to perforate it. In a few cases the cavity was filled with pus. The periosteum did not appear much thickened, but was easily separated from the shaft. The floor of the acetabulum was more or less diseased in all of the cases. It was perforated in four. It was extensively diseased in its upper and posterior border in nine; in two cases I have seen a perforation of the upper wall opening on to the dorsum of the ilium, the external edge forming a bridge over it. In one case there was extensive disease of the pelvic bones. In short, they were all cases of advanced disease, and the pathological conditions such as, in other joints, would call for excision.

The result in these eighteen cases was as follows: Two are still in the hospital, leaving sixteen to be accounted for. Of these, eleven died and five recovered—about thirty-two per cent. The causes of death were, from pure exhaustion, one; tubercular meningitis, one; septicæmia, one; phthisis, one; amyloid degeneration, seven. In one of these cases the wound had entirely closed at the time of death. Death did not take place in these cases for some time after the operation, varying from two months to four years. The immediate effect of the excision in these cases was an improvement in all respects. The patients were free from pain, increased in flesh, had normal temperature, and in most of them were able to be about. But the wound never entirely closed except in one case. Sometimes only a small sinus was left. After a time, an examination with the probe or finger revealed the upper end of the femur bare and rough, unhealthy granulations growing from its cavity, and an examination of the abdomen in many showed enlargement of the liver and disease of the kidneys. In some cases the end of the femur was re-excised, and the cut surface exhibited the same unhealthy condition. These patients died, not from, but in spite

of the operation. Of the five patients in whom recovery took place—and by this I mean that the wound entirely closed—no sinus remained open, and the child had use of the limb. The disease had existed six years in one, three years in one, and two years in three cases. In all these patients the family history was comparatively good. In two cases, at the time of the operation, there was enlargement of the liver. In one of these, albumin in large quantity was present in the urine, and the patient had two quite profuse hæmorrhages from the lungs. Section was made one inch below the trochanter minor on account of profound disease of the shaft, yet recovery took place. In the other case the disease was confined to the head of the bone.

In regard to the permanency of the cure, one case was heard from five years after leaving the hospital. He was going about, and had good use of the limb. One I examined six years after. He was well, and had been following the occupation of an express driver. One was seen eighteen months after his discharge, and was well. The other two cases I have lost all trace of.

In regard to the amount of shortening in these cases, it varied with the duration of the disease, its extent, and the point of section. In four cases it was as follows: Three fourths of an inch; one and one fourth at time of discharge, and one and three fourths eighteen months later; seven inches five years after leaving the hospital. In one case, two inches.

The elements going to make the shortening after excision of the hip joint are, first, the amount of bone actually removed; secondly, the amount of atrophy of the whole limb from disease and disuse, and thereby the amount of stretching of the band holding the end of the bone to the pelvis. Three of my cases walked well without either crutch or cane; one with seven inches shortening can not afford to keep himself provided with a high shoe, although he can bear his weight on the limb. He therefore uses a crutch.

In referring again to the cause of death, it will be noted that in all but two patients it was due to diseases secondary in their nature, namely, amyloid degeneration, tubercular meningitis, and phthisis. The deaths from septicæmia and exhaustion were due, one to the operation, and one to the joint disease. All the patients having amyloid disease belonged to families having a marked tubercular diathesis. In some cases these changes in the abdominal organs came on early; others late, after suppuration had made its appearance. It would seem that, from a study of these cases, and others in which no operation had been done, there is a marked predisposition among children of tuberculous parents to become thus affected in the course of hip-joint disease. I have never seen a case that was not so connected, and it would seem that, the more profound the hereditary influence, the earlier these changes appear.

Two of the patients operated upon had at the time of excision marked enlargement of the liver, and one had albumin in large degree in her urine, yet both recovered; and, on examination made five years later, in one the liver was found of normal size; the albumin disappeared shortly after the operation.

I have never seen a true dislocation of the head of this bone on to the dorsum of the ilium.

The questions that naturally suggest themselves from a study of these cases are: first, was a cure by mechanical and expectant treatment probable; and, secondly, what are the indications for excision of the hip joint.

In regard to the first, I am clearly of the opinion that a spontaneous cure was not probable. The fact that, in those cases that proved fatal after excision, the patients improved in all respects for a time, varying from six months to over a year, and that they finally died of secondary disease, would seem to corroborate that opinion. I think that an earlier operation would have diminished this rate of mortality.

In regard to the second question, What are the indications for incision? I think that it is more difficult to lay down any rules. In cases giving a good family history, much can be done by mechanical treatment, and I do not think that an early operation is called for. But in the class of patients belonging to families of marked tubercular ancestry, and in hospital practice, I think that the question of excision should be considered soon after abscesses have made their appearance, as there seems to be a kind of malignancy in these cases.

The presence of amyloid changes is no bar to recovery, but is a very serious complication.

(To be concluded.)

Letters to the Editor.

"BOYCOTTING" BEGUN.

31 WEST THIRTY-SIXTH STREET,
NEW YORK, April 17, 1883.

To the Editor of the New York Medical Journal:

SIR: On the 19th of February last a gentleman from a city in this State called upon me and placed his daughter, suffering from Pott's disease of the spine, under my care. At the end of a few days, and after the apparatus had been adjusted and full instructions as to treatment, etc., had been given, the patient returned to her home.

Not long after her return she was attacked with pneumonia, and for several weeks she was unable to wear the support. Quite recently some of the symptoms became obscure, and the family physician (a homœopath), being unable to decide whether the patient should wear the apparatus, wrote me on two or three occasions asking some questions. I answered these letters. Then came a request from the father of the child that I should visit the patient. To this I consented. A few days ago I visited her, and afterward conferred with the family physician and a prominent surgeon of the place (a "regular"). My diagnosis was accepted, and all suggestions as to treatment were, I believe, adopted by the family physician.

Three days after my return I received a letter from an old and prominent member of the profession in the city I had visited. I quote from this letter, omitting names for the reason that, to this extent, I regard it as a privileged communication. My correspondent, after referring to my visit and the gentleman I had met, says:

"I am sorry to find you follow the new code, and are now doing all, it appears, you are able to injure an honorable profession and make the getting their daily bread even more difficult to many of its members by holding up the hands of quacks here, and, presumably, elsewhere. At the February meeting of the ——— County Medical Society the society voted 22 or 3 to 7 to stand by the code of the American Medical Association, and repudiated the actions of the State society.

"We will boycott all doctors here or elsewhere who pursue a different course, and, if we can't find loyal men in New York to send our friends and patients to when we need counsel, we will send them to Boston and Philadelphia.

"Respectfully yours,

"———, M. D."

I would not presume to publish or comment upon my friend's letter were it not that his threat is a general one. As such I feel that I have a right to place it upon record.

My personal relations to the case, it seems to me, need no explanation. But, as my friend takes it for granted that there is something wrong, I may be pardoned for saying that I went to visit my own patient. I was responsible to the parents of the child for the treatment of a chronic disease. The patient needed my personal attention. At the same time the experience of the family physician did not enable him to decide upon the value of certain symptoms, which lack of experience he thought I might be able to supply. My analysis of the symp-

toms aided the attendant, enabled him to direct the treatment more intelligently, and brought comfort alike to the patient and to her anxious parents. I would like to ask my correspondent: Upon what grounds could I have declined to visit the patient and confer with the family physician? Could I have advanced in any way the interest of science, of humanity, or of true progress by declining? On the contrary, was it not my duty, in every sense, to afford the patient the benefit of my experience?

Would it not also be pertinent for me to ask my friend if, in "boycotting" those who differ from him in his interpretation of medical ethics, he does not convict himself of even a greater error than that which has so often been attributed to homœopaths alone? Is there any more mistaken dogma than one which excludes and threatens? As an illustration of the absurd position of my correspondent, I might say, if I were called upon to meet him in consultation, that I should have as good grounds for declining to meet him as those usually assigned for declining to meet an "irregular"—whose "exclusive dogma," after all, does not "boycott" those who differ on ethical points, and whose position, though far from meeting my approval, is not sustained by threats.

There is one point which strikes me very forcibly in my correspondent's letter. It has been the custom of certain opponents of the "new code" to ascribe to "specialists" alone a selfish and moneyed view of these "irregular" consultations. In this letter we find, from a prominent general practitioner, a frank statement that it is a matter of self-interest which sustains him in his position: for he places the matter squarely upon the "daily bread" basis, and by "boycotting" he threatens to take from all those who do not think as he does, so far as he is able, the means by which "daily bread" is gained in the profession.

I wish to say to my friend that I have no sympathy whatever for any school of medicine save the one founded upon the broad basis of science and humanity. But, while there are, as exist to-day, different schools which are recognized in law, while there are honest differences of opinion, while there are so many obstacles in the way of educating public opinion, there is, it seems to me, only one course. We should lay aside all prejudice and bigotry. The school of science and humanity should be liberal. Its members should ignore petty differences. They should be prepared to meet in consultation, when necessary, all who need their services, refusing to meet those only of any school whose education, associations, and reputations make them unfit for the company of gentlemen.

I have occupied more of your space than I intended. The subject, however, is an important one, and, though I know too well that my influence in the matter will count for little enough, I have availed myself of the text which my friend gives me to extend to him, through your columns, my criticism upon his conduct and position.

Yours faithfully,

NEWTON M. SHAFFER.

Miscellany.

THE DEVELOPMENT OF STUMPS BY THE USE OF ARTIFICIAL LIMBS.—The impression seems to prevail to some extent among physicians that an artificial limb should not be worn after an amputation until the stump has had time to "harden," and, with this idea, patients are advised to defer the purchase of a limb frequently for months after the immediate effects of the amputation have entirely disappeared.

Undoubtedly there are many cases in which this advice is good, particularly in those of a strumous diathesis in whom an injury or abrasion may be productive of severe local lesions, and in those where amputation has been done in consequence of a necrotic condition of the bones. It is not this class, however, to which reference is made, but rather to those in which amputation is rendered necessary by an injury occurring when the individual is in full health, as in cases of gunshot wounds, and in the almost daily and by far too frequent accidents on the steam- and horse-railroad tracks.

It may be safely laid down as a rule that the sooner after an amputation an artificial limb is applied, the better it will be for the development of the stump, and the preservation of the symmetry and health of the sound limb. Especially does this seem to apply to cases occurring in young persons, in whom the stump is apt not only to fail in development proportionate to the growth of the individual, but to become atrophied and flabby from disuse.

In a recent conversation with Mr. A. A. Marks, manufacturer of artificial limbs in this city, attention was called to this matter, and the following case was cited in support of the theory:



FIG. 1.

The subject of the accompanying illustration, when but eight years of age, was furnished with one of Mr. Marks's artificial legs, which has been lengthened, enlarged, or replaced by Mr. Marks as demanded by the increased size of the wearer.

The result of this early application of an artificial leg is seen in the healthy development of the stump, which nearly equals in size the corresponding part of the sound limb. In street dress one would hardly recognize the one-legged gymnast whose feats of strength and whose agility have given a world-wide reputation to "Stewart Dare," as he is known in public. When off the stage and in street attire, his easy, graceful walk gives very little evidence of an artificial leg, which is due in part to the perfect adaptation of the socket to the stump, and in part to the flexible rubber foot (invented by Mr. Marks), whose



FIG. 2.

action so closely simulates that of the natural foot, and does away so thoroughly with the tell-tale "thud" which always accompanies the use of the ordinary artificial leg, that one would hardly suspect that the individual under observation had been subjected to an amputation.

THE ASSOCIATION TO PREVENT THE RE-ENACTMENT OF THE OLD CODE.

—On Friday evening, the 20th inst., the "Association for Preventing the Re-enactment in the State of New York of the Present Code of Ethics of the American Medical Association" was organized at a meeting held at the house of Dr. Jacobi, being an adjourned meeting of those opponents of the old code who met at the same place a fortnight before. In the absence of the president, Dr. Alfred C. Post, Dr. S. O. Van der Poel presided. Among those present were Dr. Fordyce Barker, Dr. A. Jacobi, Dr. William H. Draper, Dr. Thomas Addis Emmet, Dr. Charles E. Hackley, Dr. Charles Carroll Lee, Dr. Alfred L. Loomis, Dr. C. R. Agnew, Dr. D. B. St. John Roosa, Dr. James L. Little, Dr. Edward H. Parker, of Poughkeepsie, Dr. Henry G. Piffard, and about fifty other gentlemen. A plan of organization was adopted, and a form of address to the profession throughout the State was settled upon. The latter will be found in another article.

AN APPEAL TO THE MEDICAL PROFESSION OF THE STATE OF NEW YORK.—At the same meeting the following address to the medical profession of the State of New York was adopted, and ordered to be issued signed by the President and the Committee of Fifteen:

"When a considerable number of the representatives of a learned and liberal profession honestly believe that the rules by which their relations to their colleagues and to the public have hitherto been regulated have been injurious to the profession and to the community, it is clearly their right and their duty to labor for the abolition of such rules, and to state the reasons why they should no longer be enforced.

"The Code of Ethics of the American Medical Association which is now in force is identical with that which was in force in the Medical Society of the State of New York, and which was abolished at the annual meeting of that society in February, 1882. It appears, from the proceedings which led to the abolition of the code in the State of New York, that there had been a gradually increasing conviction among its members that some of the provisions of the code were arbitrary and illiberal, and that a larger liberty should be granted the members of the society in the performance of their professional duties. After a full discussion of the subject, a vote of the society was taken, and, by a constitutional majority, the old code was abolished, and a new one was enacted in its place. Among those who voted for the substitution of the new code for the old one were many members who preferred the abolition of a specific ethical code, as unnecessary for the guidance of an honorable and learned profession. But the members who took this view of the subject were willing to unite with those who were less radical than themselves, in order to secure the abandonment of the most obnoxious features of the old code. At the annual meeting of the society in February, 1883, a strong effort was made by the advocates of the old code to undo the work of the previous year and to re-establish in this State the code of the American Medical Association. For this purpose no exertions were spared to secure the election of delegates who were in favor of the proposed retrograde movement. But the efforts which were then made failed to secure the votes of even a majority of the members of the society, a two-thirds vote being necessary.

"It is well known that a strong effort is now being made, even by coercive measures, to secure in advance such a representation at the meeting of the society in 1884 as will undo the work which was done in 1882 and 1883. Believing that such action would be injurious to the honor, dignity, and usefulness of the profession, and to the best interests of the community, we earnestly entreat the members of the profession to give the subject their serious consideration, and to use all legitimate means to prevent the re-enactment of the present code of the American Medical Association by the Medical Society of the State of New York. It appears to us to be particularly important to preserve to each member of the profession perfect liberty to decide for himself how he shall act in order to secure the best interests of the sick and the honor of the profession.

"The arbitrary rules which have controlled, to so large an extent, the actions of medical men, and which were originally designed to defeat the efforts of irregular practitioners to gain influence with the community, have signally failed to accomplish the object in view. These rules have not commanded the respect of intelligent men in

other professions. They have been regarded as belonging to the same category as the rules by which the various trades-unions have infringed upon the individual liberty of their members, subjecting those who resisted the arbitrary action of the majority to the greatest indignities, pecuniary losses, and even personal sufferings and dangers. We call upon the members of the medical profession to unite with us in freeing the profession from this stigma, and in giving to all its members perfect liberty to practice their art in accordance with the dictates of their own consciences, and with the enlightened opinion of intelligent men who are engaged in other pursuits."

DR. FORDYCE BARKER ON THE CODE CONTROVERSY.—We give below a report which we believe to be substantially, and as near as possible verbally, correct of the remarks of Dr. Fordyce Barker, President of the New York Academy of Medicine, who had been invited to be present at the meeting of the "Association to Prevent the Re-enactment in the State of New York of the Present Code of Ethics of the American Medical Association," in response to a call from the Chair.

Dr. Barker said: Mr. President, I thank you for this opportunity to define my exact position in regard to the question which is now so disturbing the profession, not only of this city and State, but throughout the whole country. I have declined to become a member of your association, and I hope my reasons will be perfectly understood, even if not perfectly satisfactory, to every gentleman present. I am always willing to concede to every one else perfect tolerance of honest conviction, freedom of conscience, and liberty of action in all questions of moral duty, so far as they do not interfere with the rights of others, or our obligations to our profession and the public; and I claim, and shall always claim, the same right for myself as an individual. It has long been my conviction, as I have repeatedly expressed within a few years before large public meetings both in this city and elsewhere, in no equivocal terms, that the influence of the old code, as it has generally been understood, has not been useful to the profession as regards either its relations to the public or its influence on the conduct of its individual members in some important points relative to its ethical duties to those who seek for our professional assistance.

If, therefore, I have been misunderstood and misrepresented by some who stand prominent on both sides of the hot contest now going on, I do not feel that it is my fault, but accept it as my misfortune as an individual, and I wait in the full confidence that time will set me right. But, sinking all personal considerations, I think it important that all should understand the present status in relation to the unfortunate and deplorable contest now going on in the profession. Some four weeks since I had an interview with one of many valued friends who hold opinions different from my own in regard to the necessity and usefulness of the old code. One year ago the matter had come up before the Academy of Medicine in relation to the action of some of its delegates to the State Medical Society. Dr. Flint then expressed himself in strong terms against any discussion of the code or ethical questions in the Academy, and urged that such questions should be left to a sister society, the New York County Medical Society, where they properly belonged. I had no reason to believe that these views were not those also of all, with but one exception, who agreed with him in sentiment in regard to the old code. The result of our interview was an agreement on my part to reply to a letter which he would send me, and that he should make such use of my answer as he should deem best. This correspondence was sent by him to the "New York Medical Journal," and was published in its issue of March 24th. In my letter, the main point which I urged was that greater good could be secured by a discussion of the principles which underlie medical ethics, by the wise and good men of the profession who hold divergent views, in a spirit of candor and honest purpose, than by discussions in our medical societies, which almost necessarily involve personal feeling and the imputation of bad motives, and in which the wish to triumph by a majority of votes is stronger than the desire to convince. I have in my possession a letter from Dr. Flint expressing his great pleasure in receiving my letter, his belief that the letter would do great good, and informing me that he had sent it for publication to the editor of the "New York Medical Journal."

With but one exception, I never had the slightest reason to suspect

that the sentiments of this letter did not receive the approval of all those whose views in regard to the code were in accord with those of Dr. Flint, until yesterday noon. A gentleman then called upon me, whose countenance I recalled, but whose name I was compelled to ask. This gentleman asked me if I was aware that a circular had been privately sent to many members of the Academy, asking them to be present at the next meeting to vote for a resolution to instruct the Committee on Nominations not to recommend any one for election who was not in favor of the old code. He then stated that he himself had always been in favor of the old code, and that he had always voted in favor of it, both in the State and county medical societies, but that he could not join in such an underhand movement, as he knew that in certain instances terrorism had been resorted to with certain of the younger men who held positions in connection with some of our medical institutions. He was so disgusted with this method that he had determined not to attend the meeting. I had heard nothing before of such a movement, and could hardly believe that his statements were authentic, notwithstanding their circumstantiality. But I at once sent a note to Dr. Weir, the First Vice-President, telling him what I had heard, and begging him to be present, as, if this statement should be true, I wished to leave the chair and make my earnest protest against a movement which, in my judgment, would be ruinous to the Academy of Medicine.

During the afternoon I had convincing proof that what I had heard was authentic. It was late in the afternoon, and the question in my mind was what could be done to avert such a calamity for the Academy of Medicine. I saw no other way except to secure time for calm deliberation, time for passion and excitement to subside, for reason to recover its sway where madness now seemed to govern, and for wise counsels and sound judgment to control the action of the Academy. I therefore went to Dr. Flint (the Senior, I mean), and begged of him to make the motion promptly, that the by-laws be suspended, and that when the Academy adjourns, it be adjourned to the first Thursday in October. For reasons possibly satisfactory to himself, Dr. Flint positively refused to accede to my request.

Nothing more could be done by me except to preside at the meeting with the utmost impartiality, without exhibiting the least bias in favor of one side or the other. The attack was led, the motions were proposed, as you all know, by a most adroit machine politician, who has the fluent faculty of forcible expression, often more effective in excited assemblies than calm persuasion and sound argument, who, whatever may be his other merits, can not claim to be a medical practitioner. You all know the vote by a packed meeting, some of whom were brought there by intimidation. I assert what I know to be true, and you all know the preamble and resolutions which were adopted.

Then came the climax. It was then moved that the vote be reconsidered, and that the motion for reconsideration be indefinitely postponed. The leader who made this motion had the unblushing effrontery to distinctly avow that the object of this motion was to "throttle" the Academy—"throttle" was the precise word that was used.

The ignorance, the folly, and the absurdity of this, as a specimen of parliamentary tactics, would have been ridiculous and laughable had it not been pitiable and deplorable. No such vote as this can "throttle" any corporate body in taking away its power of expressing its future will.

But such a vote may asphyxiate the Academy in another way. It may stop its growth by preventing the election of another Fellow, as it creates a new standard of requirement, not of character, not of scientific attainment, but of belief as to codes of ethics. Those who are suspected of not being sound on this question will be black-balled, and this bad example will inevitably be followed by the equally bad practice of black-balling those whose honest convictions lead them to believe that the old code is useful and necessary for our profession. Then follows the great danger, also, of withdrawal from membership of large numbers. The disgust and displeasure excited by the proceedings of the evening caused three of our prominent Fellows to at once offer their resignations. After the adjournment, another, one of our most valued and important officers, who had always supported the old code, announced to me his determination to resign both his office and

his membership. I am sure that all present would be surprised if I should give the number of those who to-day have expressed, either by note or in a personal interview, their intention of withdrawing from the Academy; but I do not think that you will be surprised when I assert that the number of these who were supporters of the old code is even greater than that of the advocates of the new code or of no code. No high-minded, honorable man, who respects himself or regards the interests of his profession, will support or even sanction a "rule or ruin" policy in a scientific body with the high aims of the New York Academy of Medicine.

For some years, the Academy of Medicine has carried on its work most harmoniously, and it has been most prosperous. Its scientific work has been most valuable, and excellent as to its quality. Its library has grown with wonderful rapidity, and its Journal and Circulating Department has been put on a good basis. Our most promising and best young men were rapidly coming in to fill up its numbers and increase our resources, and many of our prominent men, who have before been indifferent, were taking a warm interest and participating in its discussions and contributing papers. Many others, not of our profession, have contributed handsomely to add to our means of usefulness, thus showing their interest in our work, and their appreciation of the importance and usefulness of the Academy of Medicine, both to the profession and the public. And now a firebrand has been surreptitiously thrown into our midst. The resolutions passed were wholly unnecessary, utterly mischievous and useless, and could accomplish no possible good, either for the Academy as a body, or for its individual members, or in the advancement of any principle or cause. It was pure wickedness, manifestly instigated by the devil.

I will frankly avow that no one present could have been more disgusted and offended by the ways and methods of the leader in last evening's bad work than myself. Painful as it is to end the intimacy and break the friendship of more than twenty years, I can never forgive him for dragging his noble father from the pinnacle where his beautiful character and grand professional work had placed him down into the mire of medical politics.

After the pernicious resolutions of the evening had been adopted, I made a personal request that some one would make the same motion as I had begged Dr. Flint to make, and my motives were the same as in the first instance. But my purpose I have since learned was misunderstood, and the motion was not carried. I then stated that, under existing circumstances, I felt that I could not carry on the duties of the office successfully or satisfactorily to myself, and I therefore felt compelled to resign.

The motion was then renewed, and the Academy now stands adjourned to the first Thursday in October. I then withdrew my resignation.

And now, Mr. President and gentlemen, I take leave to say that while I believe I am in thorough accord with the sentiments expressed in your declaration, as I have heard it read this evening, my loyalty and allegiance still remain with the Academy of Medicine.

The question of the code is only a question of the day. The spirit of the age, its progressive intelligence, the marked growth of broad and liberal views, a better appreciation of the ethics which should govern the profession in its relations to the public, must inevitably result from the study of the principles which underlie all ethics, and will, it is my firm belief, lead to a speedy settlement of the questions which now so agitate and disturb the profession. I have that confidence in the profession to believe that they will be settled as they should be, within two or three years.

But the question as to the perpetuity and the usefulness of the Academy of Medicine is one of great importance, both to the profession and the public, for all time to come. I do not anticipate that in five months there will be any essential change in the views of individuals in regard to a code of ethics, but between now and October violent partisan feelings may subside, and all good and true and strong men will feel that the honor and standing of the profession are at stake, that the estimation in which the profession as a body is held by the public is involved in the decision whether it will support a purely scientific organization, and keep up the excellent library and reading-room which

have been, by the generous and noble contributions of some of our number, so successfully established. I hope that at our next meeting some common ground can be found upon which all can meet and unite in working together for such a purpose, that all side issues may be banished, and that all opportunity for the admission of anything but scientific work, and the growth of our library, may be for ever barred.

[Throughout this address, Dr. Barker was listened to with the closest attention. He spoke with the utmost earnestness, and was frequently interrupted with applause.]

OPPONENTS OF THE OLD CODE.—We have been asked to publish the following list of those who have signed a paper headed:

"We, the undersigned, are opposed to the present Code of Ethics of the American Medical Association, and approve of the use of all honorable means to prevent its re-enactment in the State of New York."

Agan, D. H.	Field, M. D.
Agnew, C. R.	Fischer, F. L.
Alexander, W. T.	Forrest, W. E.
Allen, G. W.	Foster, F. P.
Alsdorf, J.	Fox, G. H.
Anthon, E.	Friedman, A.
Arnold, G. M.	Frothingham, W.
Ayres, W. C.	Fuller, R. M.
Bacon, G.	Gale, Le Roy.
Baker, M. N.	Garrigues, H. J.
Bates, E. S.	Gerster, A. G.
Bennett, F.	Goodwillie, D. H.
Billings, J. H.	Griswold, H.
Birdsall, W. R.	Gruening, E.
Bissell, M. F.	Gunning, J. H.
Black, C. L.	Hackley, C. E.
Boldt, H. J.	Hadden, A.
Born, R. O.	Hammond, W. A.
Booth, J. A.	Hardy, W. L.
Brandeis, R. C.	Heath, A. S.
Brill, N. E.	Hegeman, J. A.
Brinkman, A.	Heilbrun, A.
Bucklin, C. A.	Hitchcock, U. G.
Burt, S. S.	Holcombe, W. F.
Campbell, J. L.	Holt, L. E.
Campbell, W. C.	Honneggar, O. P.
Castle, F. A.	Huber, F.
Chamberlain, W. M.	Hunter, A. S.
Chichester, W. R.	Hunter, C.
Cleary, G.	Hurdsfield, J.
Cole, P. C.	Ives, F. J.
Courtney, T.	Jacobi, A.
Crampton, H. E.	Jacobi, M. P.
Crosby, W. D.	Jacoby, G. W.
Cross, T. M. B.	Johnson, L.
Currier, A. F.	Johnson, S. M.
Cushman, W. F.	Jones, S. S.
Darken, E. J.	Jordan, W. C.
Derby, E. H.	Joy, H. D.
Dessau, S. H.	Kennedy, J. T.
Dexter, B. F.	Kimball, R. B.
Dillingham, F. H.	King, D. F.
D'Oench, F. E.	Kinnicutt, F. P.
Drake, F. R. S.	Knapp, H.
Draper, W. H.	Lambert, E. W.
Duane, A.	Lang, I. M.
Duffield, F. E.	Lee, C. C.
Dumond, C. J.	Leon, A. M.
Emerson, J. H.	Liautard, A. F.
Emmet, B. McE.	Little, J. L.
Emmet, T. A.	Livemore, F.
Evans, G. A.	Lockrow, A. V. B.
Farwell, G. A.	Loomis, A. L.

Lordly, J. E. M.
 Loring, C. A.
 Lyttle, H. G.
 Mack, C. S.
 Marion-Sims, H.
 Maynard, A. W.
 McBride, T. A.
 McDonald, A. E.
 McGay, R. J.
 McGuire, F. A.
 McLaury, W. M.
 McMaster, N. G.
 McNutt, S. J.
 Mennen, J. H.
 Messenger, J.
 Middlebrook, A. B.
 Miller, J. C.
 Mollenhauer, R.
 Moore, W. O.
 Morrill, J. L.
 Morrow, P. A.
 Nash, M. H.
 Nesbitt, J. H.
 Newcomb, A. S.
 Newman, W.
 Nichols, T.
 Noble, J. G.
 Norton, T. G.
 Odell, F. M.
 Oppenheimer, I.
 Pardee, E. L.
 Partridge, E. L.
 Peck, E. S.
 Peters, G. A.
 Peters, J. C.
 Piffard, H. G.
 Pinkney, H.
 Pooley, T. R.
 Porter, W. H.
 Post, A. C.
 Prescott, R. B.
 Prout, J. S.
 Purdy, A. E. M.
 Purdy, A. S.
 Ramsdell, E. B.
 Ranney, A. L.
 Remsen, C.
 Rhein, L. M.
 Ripley, J. H.

Roberts, N. S.
 Robinson, A. R.
 Rockwell, A. D.
 Roof, S. W.
 Roosa, D. B. St. J.
 Sands, H. B.
 Satterlee, F. LeR.
 Satterthwaite, T. E.
 Schirmer, H. B.
 Schoonover, W.
 Schweig, G. M.
 Seaman, L. L.
 Sexton, S.
 Shaffer, N. M.
 Smith, R.
 Spitzka, E. C.
 Stern, L.
 Stevens, W.
 Stewart, R.
 Sturgis, F. R.
 Swinburne, R. E.
 Tansley, J. O.
 Thomson, W. H.
 Townshend, A. B.
 Tracy, R. S.
 Valk, F.
 Van der Poel, J.
 Van der Poel, S. O.
 Van Wyck, W. H.
 Varley, C. D.
 Vedder, M. R.
 Vermilye, W. H.
 Vockenbunrg, A.
 Von Ramdohr, C. A.
 Wagner, C.
 Waitzfelder, E.
 Warren, J. S.
 Wattles-Faunce, M. A.
 Weber, J. G.
 Webster, D.
 Wheelock, W. E.
 Whiting, G. F.
 Wiggin, F. H.
 Wilcox, T. H.
 Wiley, W. G.
 Williams, E. P.
 Winston, G. S.
 Woodcock, A.
 Woolley, J. V. S.

Young, C. E.

THE ETHICAL CRISIS.—“There is little doubt,” says the “Medical Record,” “that the activity displayed by those holding diverse views regarding the question of ethics is leading many who heretofore have given little thought to the matter to begin a careful examination of the subject for themselves. A series of commentaries by Dr. Austin Flint on the Code of the American Medical Association is in process of publication in the columns of our valued contemporary, the ‘New York Medical Journal.’ In his remarks concerning the portion of the code that relates to consultations, Dr. Flint claims that the ‘exclusive dogma’ clause of the code was directed not so much against the homœopaths as against the steam doctors, or Thomsonians, etc. He further claims that the American code was not intended ‘to interfere with the practice of medicine, under any circumstances, in the cause of humanity.’ He says that ‘the restrictions of the code are in no wise inconsistent with the demands of humanity in cases of emergency.’ This view of the case is certainly a novel one, and one that, so far as we are aware, has never been taken by any of the organized bodies that have heretofore accepted this code. If this is the correct view, it is greatly to be regretted that Dr. Flint had not brought it to

the notice of the profession at an earlier date. Curiously enough, he goes on to say that ‘a practice based on an exclusive dogma’ is not a proper ground on which to refuse to ‘meet practitioners in consultation.’ ‘Any physician has a right either to originate or adopt an exclusive dogma, however irrational or absurd it may be.’ Dr. Flint hopes that the American Medical Association ‘will adopt such modifications in the phraseology of this section as will place restrictions on consultations, not on the ground of doctrines or forms of belief, but on separation from and avowed antagonism to the medical profession.’ If Dr. Flint would personally urge this matter on the attention of the association as its approaching meeting, we have little doubt that much could be effected in the way of restoring harmony in the profession. A much better and lasting solution of the question, however, would be arrived at if the association itself would rescind all formal codes, and simply urge the profession to establish such ethical regulations as local circumstances might render most expedient. If the American Medical Association would for the future strictly confine its deliberations to the consideration of purely scientific matters, science would be the gainer and propriety would lose nothing.”

THE AMERICAN MEDICAL ASSOCIATION.—The thirty-fourth annual session will be held in Cleveland, O., on Tuesday, Wednesday, Thursday, and Friday, June 5, 6, 7, and 8, 1883. The officers of the sections are as follows: Practice of Medicine, Materia Medica, and Physiology—Dr. J. H. Hollister, Chicago, Chairman; Dr. J. G. Lee, Philadelphia, Secretary. Obstetrics and Diseases of Women and Children—Dr. J. K. Bartlett, Milwaukee, Chairman; Dr. G. A. Moses, St. Louis, Secretary. Surgery and Anatomy—Dr. W. F. Peck, Davenport, Iowa, Chairman; Dr. P. F. Eve, Nashville, Tenn., Secretary. State Medicine—Dr. Foster Pratt, Kalamazoo, Mich., Chairman; Dr. T. L. Neal, Dayton, O., Secretary. Ophthalmology, Otology, and Laryngology—Dr. A. W. Calhoun, Atlanta, Ga., Chairman; Dr. Carl Seier, Philadelphia, Secretary. Diseases of Children—Dr. R. F. Blount, Wabash, Ind., Chairman; Dr. J. H. Sears, Waco, Texas, Secretary. Oral and Dental Surgery—Dr. D. H. Goodwillie, New York, Chairman; Dr. T. W. Brophy, Chicago, Secretary.

The Secretary gives notice that a member desiring to read a paper before any section should forward the paper, or its title and information as to its length (not to exceed twenty minutes in reading), to the chairman of the Committee of Arrangements, Dr. X. C. Scott, 393 Euclid Avenue, Cleveland, at least one month before the meeting.

Action will be in order on the following proposed amendments to the constitution: 1. Offered by Dr. N. S. Smith, Dakota.—“To provide for the admission to membership of two delegates from the Medical Bureau of the United States Indian Service, to be nominated by the Surgeon-in-Chief of that bureau, and approved by the Secretary of the Interior.” 2. Offered by Dr. J. M. Toner, D. C.—“That the office of Permanent Secretary be vacated, and that the Nominating Committee hereafter annually nominate a secretary who will serve without compensation.” 3. Offered by Dr. F. Pratt, Mich.—“That the law requiring the nominations for officers to be made from those members present at the annual meeting shall apply only to the President, Vice-Presidents, Chairmen and Secretaries of Sections, the Assistant Secretary, the Chairman of the Committee of Arrangements, and the Judicial Council.” 4. Offered by Dr. J. M. Keller, Ark.—“To permit the holding of the annual meeting as late as the first Tuesday of September, if desirable.” 5. Offered by Dr. J. H. Sears, Ark.—“That the Chairman and Secretary of each section may add any number of earnest workers to their sections, in addition to those named by the Nominating Committee, and that the Librarian be made a permanent officer.” Action will also be in order on an amendment to the By-Laws offered by Dr. J. W. Smith, of Iowa: Art. II, Sec. 8. Permanent Members: strike out the words “but without the right of voting.”

THE AMERICAN LARYNGOLOGICAL ASSOCIATION.—The fifth annual meeting will be held in New York on Monday, Tuesday, and Wednesday, May 21st, 22d, and 23d.

THE WEST VIRGINIA STATE MEDICAL SOCIETY.—The Medical Society of the State of West Virginia will hold its sixteenth annual meeting at Grafton on Wednesday, May 16th.

THE PENNSYLVANIA STATE MEDICAL SOCIETY.—The thirty-fourth annual meeting of the Medical Society of the State of Pennsylvania will be held at Norristown on Wednesday, Thursday, and Friday, May 9th, 10th, and 11th.

THE CHAIR OF PHYSIOLOGY AT THE UNIVERSITY MEDICAL COLLEGE.—We understand that Dr. Louis A. Stimson has been appointed to the chair of physiology in the Medical Department of the University of the City of New York, to succeed Dr. J. W. S. Arnold, who is made professor emeritus.

THE ALUMNI ASSOCIATION OF BELLEVUE HOSPITAL MEDICAL COLLEGE.—At the annual meeting held April 21st, the following gentlemen were elected officers: President, F. A. Castle (re-elected); First Vice-President, V. P. Gibney; Second Vice-President, W. T. Alexander; Recording Secretary, R. Van Santvoord; Corresponding Secretary, R. Newman; Treasurer, W. H. Katzenbach; Historian, F. A. Castle. Managers, to serve until 1884: J. D. Bryant, F. A. Castle, W. A. Ewing, F. E. Hyde, G. R. Kent, W. T. Lusk, R. Newman, J. R. Taylor, C. Terribery, R. M. Wyckoff. To serve until 1885: E. S. Bunker, L. J. Godon, G. Griswold, E. M. Lyon, E. A. Maxwell, J. B. Messimer, J. J. Van Voorst, Jr., W. R. Varick, D. L. Wallace, T. Wilde. To serve until 1886: G. W. Bull, T. H. Burchard, V. P. Gibney, E. C. Harwood, A. M. Jacobus, C. A. Leale, A. V. B. Lockrow, L. H. Sayre, A. A. Smith, L. M. Yale. To serve until 1887: W. T. Alexander, F. H. Bosworth, F. S. Dennis, W. H. Katzenbach, S. N. Leo, J. P. Munn, L. Putzel, G. H. Swezey, R. Van Santvoord, W. G. Wylie.

HOSPITAL STEWARDS IN THE ARMY.—The surgeon-general of the army announces that hospital stewards of the first class are appointed only from among the enlisted men who, as hospital stewards of the subordinate classes, have proved themselves worthy of advancement. At present there is but one vacancy.

THE MASSACHUSETTS STATE BOARD OF HEALTH AND THE TEWKSBURY ALMSHOUSE.—The Governor of Massachusetts having requested the State Board of Health to appoint an officer to take charge of the Tewksbury Almshouse for the time being, it is reported that the board declines to do so, and has sought legal advice as to its discretionary power in the matter.

THE COUNTY MEDICAL SOCIETY AND THE UNITED STATES MEDICAL COLLEGE.—We are glad to see that the danger of legislative action being carried to resuscitate the United States Medical College, to which we lately called attention, is appreciated by the Medical Society of the County of New York. At the meeting held last Monday evening nearly if not quite all the members present signed a petition praying the Senate to kill the Assembly bill devised to compass the base purpose of setting the so-called college on its feet again.

THE BOSTON WATER BOARD.—Last week we announced the nomination of Dr. John G. Blake as a Water Commissioner. We are happy to be able to announce that this admirable appointment has been confirmed by the Board of Aldermen.

A NEW ANTIPYRETIC: KAIRINE.—At a recent meeting of the *Société Médicale des Hôpitaux*, of Paris, M. Hallopeau announced that kairine exerted a remarkable antithermic action in most pyrexial affections. Given in doses of half a gramme (about seven grains and a half) every two hours, it causes free sweating and a notable lowering of temperature at the end of two or three days. The action may be kept up for a long time without danger of poisoning. [It may be remarked that two or three days is a long time to wait for the action of an antipyretic.]

THE COST OF MEDICAL CHARITY IN EUROPE.—According to the "Union médicale," the annual public expenditure for medical assistance is 7.61 francs in Vienna, 7.28 francs in Stockholm, 5.86 francs in Christiania, 5.80 francs in Prague, 5.72 francs in Berlin, 15 francs in Paris, and 11.24 francs in London.

DEATH OF DR. EDWARD B. TURNIPSEED.—Dr. Edward Berrian Turnipseed, of Columbia, S. C., died on the 18th inst., at the age of fifty-four. Dr. Turnipseed was widely known as an occasional contributor to the medical journals. In the early part of his career he was a mili-

tary surgeon, serving as a surgeon-major in the Russian army during the Crimean War.

DEATH OF DR. DAVID CUMMINS, OF LOUISVILLE.—The "Louisville Medical News," speaking of the late Dr. David Cummins, who died on the 14th inst., says: "Dr. Cummins had just passed his fifty-eighth birthday. For more than three months he had occasionally complained of vertigo with more or less headache. Two weeks since, a violent pain in the right frontal region forced him to bed, and from this time he was never thoroughly conscious. Dr. Cummins was a successful practitioner in the departments of surgery and obstetrics as well as in general practice. He was a man of strong practical common sense, of sunny temper, and attractive manners. He possessed the regard and respect of his brethren and the devoted love and admiration of a vast clientele. His practice was probably the most lucrative in the city, and by it he had amassed a large fortune. He was 'a good man, skilled in healing.' The death of no other man is so great a calamity to a community as is that of a great physician. Such a loss Louisville sustains in the death of Dr. Cummins."

DEATH OF SURGEON-GENERAL JAMES C. PALMER.—Surgeon-General James C. Palmer, United States Navy (retired list), died in Washington, on the morning of the 24th inst., at the age of seventy-two. He was a native of Maryland, and was appointed Assistant Surgeon in the navy March 26, 1834, being assigned to the frigate *Brandywine*, of the Pacific squadron. In 1836 he sailed around the world in the *Vincennes*, and in 1838 accompanied an exploring expedition. Dr. Palmer was commissioned as Surgeon October 27, 1841, and attached to the sloop *St. Mary's*, home squadron, from 1844 to 1846, and in 1850 was assigned to the *Vandalia*, Pacific squadron, where he served until 1853, when he was attached to the receiving-ship *Baltimore*. In 1857 he joined the cable expedition in the frigate *Niagara*, and in 1858 the sloop *Macedonian*, of the Mediterranean squadron. In 1861 he was ordered to the Naval Academy, and, after a short service there, was in 1863 made fleet surgeon of the West Gulf squadron, with headquarters on the flag-ship *Hartford*, being on that ship at the time of Admiral Farragut's brilliant achievement in passing Forts Morgan and Gaines at the entrance to Mobile Bay, August 5, 1864. He was ordered to the Naval Hospital, New York, in 1866, and in 1869 was placed on special duty at Newport, R. I. In 1872 Surgeon Palmer was appointed chief of the Bureau of Medicine and Surgery, and retired from active service June 29, 1873. He was a man of high culture and much literary attainment, singular purity and refinement of character, devoted to his friends, and faithful to every obligation of duty during nearly half a century spent in the public service.

ARMY INTELLIGENCE.—*Official List of Changes of Stations and Duties of Officers of the Medical Department, United States Army, from April 14, 1883, to April 21, 1883.*—WOLVERTON, WILLIAM D., Major and Surgeon. Granted leave of absence for four months on surgeon's certificate of disability. Par. 7, S. O. 85, A. G. O., April 12, 1883. — SHUFELDT, ROBERT W., Captain and Assistant Surgeon. To report in person to the president of the Army Medical Examining Board in session in New York city for examination for promotion, on completion of which will return to proper station. Par. 10, S. O. 87, A. G. O., April 16, 1883.

NAVAL INTELLIGENCE.—Surgeon H.-J. Babin has been ordered to duty at the Marine Rendezvous, New York. — Passed Assistant Surgeon William G. G. Willson has been ordered to the training ship *Minnesota*. — Surgeon Dwight Dickinson has been ordered to the Naval Hospital at Mare Island. — Surgeon George A. Bright has been detached from the Naval Hospital at Mare Island, and placed on waiting orders. — Surgeon Henry Stewart has been detached from the Michigan, and ordered to report for medical survey. — Passed Assistant Surgeon George H. H. Harman has been detached from the training ship *Minnesota*, and ordered to the Michigan. — For the foregoing items we are indebted to the "Army and Navy Journal."

SOCIETY MEETINGS FOR THE COMING WEEK.—*Tuesday, May 1st:* Medical Society of Hudson County, New Jersey (annual meeting); Neurological Society; Obstetrical Society (private). *Wednesday, May 2d:* Medical Society of the County of Richmond.

Lectures and Addresses.

LECTURES ON HUMAN AUTOMATISM.

DELIVERED AT THE LOWELL INSTITUTE, BOSTON,

By WILLIAM B. CARPENTER, M.D., LL.D., F.R.S., ETC.

LECTURE IV.

Automatism in Intellectual Action.—Formation of Perceptive Judgment, as a *General Resultant* of Previous Experience. "Common Sense" derived from like Integration of Experiences. Source of our Belief in the Reality of the External World, and in the Distinction between our Sleeping and Waking States. Ideational Automatism. Trains of Thought. Influence of Intoxicants and Morbid Poisons.

If I have been successful in the last two lectures, I have led you up to this position—that the bodily movements in which our animal life essentially consists are all really automatic, either primarily or secondarily, even those which we call voluntary being the result of the training that we have given to our automatism, and of the substitution of impulses given by our own minds through the instrumentality of the cerebrum for those that originate in some external stimulation. Of this we have an apposite illustration in an action to which I called your attention in the first of these lectures—that of coughing. For, on the one hand, a cough (which involves the combination of a great number of separate muscular actions) may be involuntarily excited by irritation of the surface of the air-passages, the effect of which is propagated to the respiratory center, whence it is reflected to the muscles; and the provocation may be so strong that we can not resist it by the strongest voluntary effort. On the other hand, we can cough voluntarily; and we do this, not by a determinate or intentional calling into action of the several muscles which must combine to execute our mandate, but by simply issuing the direction to our automaton, on which it acts forthwith.

That you may more readily apprehend the application of this principle to voluntary motion generally, I shall ask you to follow me in a little experiment which every one of you can readily perform either upon himself or herself, or upon another person. It occurred to me while I was lecturing to a medical class, some thirty years ago, upon this subject. I wanted to impress upon the minds of my pupils what I shall endeavor to make clear to yours—that when we *will* to do an action we will the *result*, but not the particular combination of muscles that shall be called into action to produce that result. For I hold that we have no power to select any muscle or muscles in the body and say they shall do this or that. We have to will the result, and the body does it for us when we have trained it to do so, or, in some instances, without any training at all. This last is the case with the movements of our eyes, which, without any training, but in virtue of the original endowments of the visual nerve-centers, direct the axes of both toward the same object, although, when this direction involves any *lateral* movement, *opposite* muscles are called into action on

the two sides. I suppose you are all aware that each eye is chiefly moved by four muscles—one above and one below, one on the inner and one on the outer side. These are called the *recti* or straight muscles. Besides these, each eye has two *oblique* muscles, to the functions of which I shall presently direct your attention. Now, you can easily understand that the recti muscles, either singly or in combination, can roll the ball of the eye in any direction. Contraction of the superior rectus (the straight muscle above the eyeball) shall roll it upward, while that of the inferior rectus rolls it downward; the external rectus rolls the ball outward, while the internal rectus rolls it inward. Now, when we raise both our eyes together to look at an object above us, we employ the corresponding muscles; as we do, also, when we lower both our eyes together so as to look downward. But when we direct the axes of our eyes toward an object on either side, one eye is rolled outward by the external rectus, while the other eye is rolled inward by the internal rectus; we then combine two muscular actions harmonically to produce the result, although the actions themselves are contrary. When, again, we determinately fix our gaze upon a near object directly in front of the nose, the internal recti of the two eyes act together, so as to draw the pupils toward each other; and this convergence becomes very sensible to another person when we gradually bring the object so near the eyes as to produce a feeling of tension in the muscles which, when put too much on the strain by the close approximation of the object, cease to maintain the convergence. We do all this without any thought or intention; and just as well without the least idea of the combination we are making as we can with the most accurate knowledge of the apparatus we are employing. We *will* to fix our gaze on one spot or another; and our automaton calls the suitable muscles into consentaneous action. Thus, I will to fix my eyes upon that clock, and I will at the same time to rotate my head horizontally to one side or to the other; and those who are near enough to me will see that my eyes will roll in their orbits from side to side in the contrary direction. Now, I am not in the least degree conscious of that movement of my eyes; it is purely automatic. The eyes roll because I have determined that, while moving my head to one side or the other, I will look fixedly at the clock, which fixedness involves the direction of the axes of the eyes so as to meet in it. In the same manner, if, while still fixing my gaze on the clock, I move my head either upward or downward, you will see that my eyes will move in the contrary direction; and this, as in the previous case, without any consciousness of muscular effort on my own part, the action being guided, not (as in most other cases) by the muscular, but by the visual sense.

There is another movement of the eyeballs which is extremely curious, and which was first elucidated by my distinguished friend, Professor Helmholtz, of Berlin. The action of what are termed the *oblique* muscles had long been a puzzle to physiologists; for it was clear that the four *recti* were sufficient to roll the eyes not only upward and downward, inward and outward, but in any direction inter-

mediate between these. Careful study of the subject, however, had rendered it probable that they give the eyeball a rotation around its antero-posterior axis, the pupil remaining fixed; but no one could assign any purpose for this rotation until Professor Helmholtz, in the "Croonian Lecture on Muscular Motion," delivered before the Royal Society in 1864, not only established the fact by a new and admirable mode of demonstration, but gave the *rationale* of it. When I *rotatè* my head horizontally, while looking at that clock, the place of its image on the retina would be changed so as to give the object an apparent motion, if it were not for the converse automatic movement of my eyes, which keeps the image on the same spot of its surface. And so, when I *incline* my head to one side or the other while still looking fixedly at the clock, the retinal image would be (as it were) twisted round in the opposite direction, giving an apparent rotation to the object—if it were not that the eyeballs are automatically turned round their antero-posterior axis, by the oblique muscles, in the contrary direction, so that every portion of the picture continues to hold its original position on the retina.

Here, then, is a clear case of the production of muscular actions, of which we are altogether unconscious, by willing the result which those muscles automatically execute. And I hold that the same is true of all so-called "voluntary" motions. None but those involving the very simplest combinations of muscular action can be executed without training of some kind; and it is only where the action of but one muscle is required to produce the result (as in the opening or closing of the eyelids) that we can single out any muscle and throw it into separate contraction.* But we can choose among all the actions which we have trained our automaton to execute, can say to it, "Do this," and the obedient machine does it without thought or consciousness of effort. Thus, when I was coming out this evening, I (mentally) said to my automaton, "Walk to the lecture-hall," and he brought me here while I was thinking all the time of the lecture I was about to give.†

I shall give you yet another illustration from an automatism we all acquire—that, namely, which takes place in the act of writing. It has probably happened to most of you all, as it often happens to myself, to misspell a word, or to write a wrong word. This generally results from the automatic combination of a coming word, or of some part of it, with what I had previously charged it to put on paper. While my hand is tracing the characters, my consciousness has been preparing fresh matters for expression; and the automatism has laid hold of this, as it were, a little too

* I have been asked how I reconcile this principle with the fact that almost any man may put his *biceps* into such strong contraction as to make it rise as a hard lump on the middle-front of his arm. Nothing, in reality, could be a better illustration of the doctrine. For no one can thus raise his biceps into a lump without (unknowingly) throwing the *triceps extensor* of the back of his arm into simultaneous contraction; since, without its antagonism, the contraction of the *biceps* would bend the forearm on the arm.

† In the classical "Voyage autour de ma chambre" of Count Xavier de Maistre, you will find this dual nature of man, as consisting of *âme* and *bête*, charmingly worked out by a deep thinker and accomplished writer.

soon, so as to introduce a letter or letters, or perhaps a syllable, or perhaps a whole word, into the matter which I had already directed it to express. This I believe to be a very common experience among men who use the pen much; and I may give you the parallel to it in a case of verbal dictation to an amanuensis.

It is recorded by John Bannatyne, who sometimes acted as the amanuensis of Sir Walter Scott, that when Scott was dictating to him the stories of his novels he would sometimes interject a word that was obviously wrong, having no connection with what preceded it. Bannatyne came to perceive, however, that this wrong word was almost always one that would have its proper place a line or two onward; so that Walter Scott must have already prepared it in his mind for dictation, and let his automaton get hold of it too early.

This automatism of our bodily organization, and the power we possess of utilizing this to our own purposes, constitutes the first general conception that I would have you shape out of the material I have placed before you in the preceding lectures. And I trust that I have further satisfied you that the secondary or acquired automatism, when a combination or succession of movements has been so frequently practiced as to become habitual, is so embodied in our organization that such successions may go on by themselves when once they have been put in train. There can be no reasonable doubt that the nervous apparatus *grows* to the mode in which it is habitually called into activity; and that thus a new mechanism gradually constructs itself, which enables actions that once required the closest attention for their due guidance to be performed automatically without any attention whatever. And I may add that I think there is much evidence of the hereditary transmission of such acquired organization, especially if it has been shaped in early life.

You are all aware of the influence of *age* in the formation of habits, and know how tenaciously the habits formed in early life cling to us. The physiologist has no difficulty in explaining this, in regard either to bodily or to mental habits. For it is during the early period of life that the body, while undergoing its development, has to create a great deal of new structure; and the habits, whether bodily or mental, that we then form, govern the building up of that structure. It is not until adult age that this building process is completed; and the organism then tends to maintain itself throughout life according to the plan with which it has been thus brought into conformity. Now, if we attempt to modify that plan afterward, by the subsequent formation of new habits, we do not succeed in impressing those habits upon the organization nearly as thoroughly as we do during the growing state of the body. This is a simple physiological fact; and it has a most important bearing upon the transitory character of later acquirements, that are not constantly kept up by practice, as compared with those of our earlier life, which keep themselves up without effort. Thus, even the most accomplished musical performers do not venture long to discontinue the "practice" of their vocal or instrumental parts, however familiar they may be with them mentally. The

greatest pianists will work most carefully upon any pieces that they are about to play in public; perhaps sitting up half the previous night in mastering the execution of particular passages, in order to train their muscles to express the ideal which their minds conceive. And I happen to know, through a friend—next door to whom Madame Patti lived during one of her opera seasons in London—that every morning her music-master came to her, keeping her for two or three hours in the practice of scales and shakes, and training her in the particular songs she was about to sing. Now, this will show you how quickly the automatism acquired in adult age fades out, as it were, if the training by which it was perfected is not persevered in, while, on the other hand, those things that we learn in our growing period become, as it were, part of our constitution. Thus, although the act of walking is in itself as difficult as any of these musical performances, we have never any trouble or difficulty in performing it, even after long disuse, except from bodily infirmity, or, as I pointed out in the last lecture, from the disturbing influence of our emotions—as when we have to walk across a narrow plank raised far above the ground, or with a rush of water beneath it.

The close correspondence that every one must recognize between habits of body and habits of mind makes it natural to pass from this subject to that which is to occupy us during the remainder of the course—the automatism of our mental life. And the first point I would press on your attention is, that during the whole waking existence our minds are in a state of constant successional change. The late Professor Clifford once began a lecture at the Royal Institution by saying: “If any one were to ask us what we had been doing during the day, it would not be an incorrect answer to say that we had been constantly changing our minds.” That was only his humorous way of expressing, by a new turn given to a familiar phrase, what every metaphysician knows to be true—that our whole mental life is a succession of states of consciousness. I shall confine myself this evening to those purely *intellectual* states into which feelings and emotions do not enter—the reception of sensations unaccompanied with feelings of pleasure or pain, the formation of perceptive judgments, and the succession of ideas which constitutes thought.

On so large a subject as this it is, of course, impossible for me to dilate with any fullness; and I deem it better to limit myself to a small number of points which admit of ready illustration than to attempt to cover a wider space by more systematic exposition. And the first of these points has reference to the automatism of sensation itself.

I have already spoken of the mode in which our consciousness becomes affected through the nervous system. When I prick my finger, or some one else pricks it for me, I feel a pain (as we commonly say) in my finger. But I do not really feel the pain in my finger. The feeling of pain is a subjective state, a mental condition, brought about by that wonderful translation, of which I spoke in my first lecture, of a *neurosis* into a *psychosis*. That translation takes place in a certain part of my brain—the ganglionic center of the nerve proceeding to it from my finger. But, by what Professor Huxley has appropriately called an

“extradition” of my consciousness, I locate that pain in the point in which the pin was run into my finger. Now, this is a purely automatic action, of which we can give no other account than that it is a part of our constitution, which (as we have every reason to believe) we share with the lower animals. Various attempts have been made to explain it; but all we can say is, that it has reference generally, though not uniformly, to the particular nerve-track along which the impression has been conveyed. For we find the mental reference made when there is no corporeity answering to it. Thus, it is a very well known fact that persons who have suffered the amputation of a limb, for some time—it may be for a long time afterward—feel pains which they refer to the lost member, and generally to the extremities of it. Here the physical condition that excites the neurosis probably has its seat in the cut end of the nerve which has been inclosed in the skin that covers the stump of the amputated limb; for there is no doubt that many of the most severe pains of this kind have originated from some special morbid change at the extremities of those nerves.

The reference of these pains to a non-existent limb is thus an automatic mental act—whether a part of our original constitution, or one acquired by an early generalization from experience, it may be difficult to say.

We seem justified in taking the same view of those other cases of what are called “radiating sensations,” in which the physical change that originates them has its seat either in the nervous centers, or in some part of the nerve-track leading to them, and which we refer to the extremities of the nerves through which they have been brought to the centers. We may produce an impression that shall give flashes of light, for instance, by galvanizing the optic nerve in its course, while no light falls on the retina. There is an old experiment which I remember making when a boy—putting a half-penny between the upper lip and the teeth as far up as it will go, and a bit of zinc on the tongue, and then making the one touch the other, the eyes being closed; a flash of light is seen every time the contact is repeated. So, again, by galvanizing the auditory nerve we may call forth sensations of sound. And the “formication,” or the pricking sensations (pins and needles), which we experience on the renewal of the circulation in a limb after it has remained “asleep” for a time in consequence of defective circulation through it, are due to such physical excitation of the nerve-trunks as serves to call forth in their ganglionic center the changes of which those sensations are the “symbols in consciousness,” our automatism referring those sensations to the locality from which the impressions usually arise which excite that condition of the nerve-center. And another case of a like kind is afforded by the “ringing in the ears,” when this is produced by mechanical pressure upon the auditory nerve distributed within the labyrinth, or by the pulsations of the carotid artery against its trunk. Disease of the nerve-centers is another very frequent cause of these “subjective sensations”; our reference of which to the organs wherein such sensations ordinarily originate is an act of mental automatism which we are incapable of modifying by any act of our will. So, we fre-

quently experience sensations which are called forth by purely mental antecedents, in which we can trace a secondary automatism that has grown up through acquired experience.

It may have happened to many of you to feel a degree of seasickness, or, at any rate, of the discomfort in which that state ordinarily commences, from the mere contemplation of an agitated sea, especially in view of a ship tossing about in it. And I remember very well that when, at one of our semi-scientific or popular exhibitions in London, there was a small model of a ship, which floated (as it were) upon a sea of gold-beater's skin, and was made, by a concealed combination of levers, to go through a series of movements remarkably resembling the pitching and rolling of a ship at sea, with an occasional sinking down into the trough of a wave, many persons said that they could not continue to look at it without sensations which made it desirable for them to turn away. I was once told of a lady who accompanied a friend to see her off by steamer, I think across the British Channel, and on whom the sight of the rough sea and of the heaving of the vessel at the pier was sufficient to excite real and complete seasickness. Clearly it was the mental state, in these cases, that called up a physical condition of the central organs, so far corresponding to that which the actual experience would have done as not only to produce the sensation but the reflex act prompted by it. It was not the mere sight, but the associations connected with the sight, that brought about that feeling. There is an old story told of himself by a very able physician of his day, Van Swieten, which is an excellent illustration of this tendency to the reproduction of a former physical state by a strong mental impression. He says that he once happened to pass a place where there was a body of a dog in a state of such loathsome decomposition as to produce upon him the physical result to which I have just now alluded. Some years afterward, in passing the same spot, the remembrance of what he then saw and smelt came upon him with such vividness as to reproduce the same result.

Now, I wish you to take in what I regard as the physiological mechanism of these occurrences, because I regard them as types of a great number of cases which are elucidated by the same interpretation. You will remember that, according to the view I have presented to you of the relation between the cerebrum and the sensorial centers at its base, it is through the latter that those changes are excited which first affect our consciousness, while it is only when the cerebrum is called into action that these changes are intellectually apprehended. Of what we term *perception*—the mental recognition of the objectivity of the source of the sensation, and the formation of a judgment as to its character—the cerebrum (we have every reason to believe) is the material instrument. The optic nerve, in the cases I have described, brings to the optic ganglion the physical impression that is converted into the elementary *psychosis*, the mere sensation; but that sensation does not originally give us any idea of the object of the sensation. The formation of that idea depends on the transmission of the effects of the psychosis to the cerebral hemispheres, the automatic working of whose mechanism, as I shall presently endeavor

to show you, translates that psychosis into the idea or intellectual concept of the object which produced the sensation. This psychosis, if transformed back into a psychosis, may act downward upon the sensorial apparatus, so as to produce therein a physical state identical with that which the impression of the actual object on the nerve of sense would excite in it.

Thus, in the case of Van Swieten, the impression originally produced on his sensorium by the sight and smell of the dead dog, reacting downward through the motor nerves to the muscles concerned in the act of vomiting, called forth that movement; but, at the same time, its transmission to the cerebrum left the impression which constituted the physical basis of the mental remembrance of the occurrence. Years afterward, this record was called into active operation by the mere sight of the place, reviving the recollection of the whole former experience. And the physical condition thus excited in the cerebrum by the remembrance of the object played downward so effectually on the sensori-motor apparatus as to produce a repetition of the act which had been consequent on the stimulation originally given by the impression made by the actual object upon the organs of sense.

I believe that a considerable number of what are called "spectral illusions" have exactly this character; and some of you may be interested in the view I take of what my friend, Mr. Francis Galton, has called "visualized numerals," upon which I know that some observations have been made by Professor Bowditch in this city. He has been kind enough to give me the particulars of a case that presented itself in his class, in which a very marked form of this visualized presentation of the numbers has occurred. Mr. F. Galton has found that there is one in about every twenty or thirty persons who, whenever he thinks of the succession of numerals, sees the figures visually projected before him in some definite arrangement; and in Professor Bowditch's pupil this arrangement varies from any recorded by Mr. F. Galton in the numerals not being seen in one plane, but in a figure of three dimensions. Sir John Herschel, I may mention, communicated to me many years ago a set of geometrical figures which he was accustomed, every now and then, to see projected upon any object which he was looking at, and asked my opinion about it. I told him that I thought there was no difficulty in understanding it upon this view: the visualized numerals in Mr. Francis Galton's case, and the mathematical figures in Sir John Herschel's, being formed, as it were automatically, by cerebral action, and their resultant psychoses being transmitted downward to the sensorium, so as there to mingle, as it were, with the sensory impressions derived through the eye, so that the one set would be combined with the other. The seat of the consciousness of the cerebral impressions being (on this view) the same as the seat of our ordinary visual consciousness, the physical impressions transmitted downward by the automatic action of the cerebrum through the converging fibers, which an old anatomist, Reil, sagaciously called "the nerves of the internal senses," would produce visual sensations as real as those ordinarily excited through the nerves of the external sense-organ. And it is, I think, by this in-

strumentality that many blind persons can call up visual pictures of objects they have once seen that are not less vivid than those originally excited by the actual sight of those objects.

We have a still more remarkable illustration of this automatic production of visual images in the phenomena of *delirium* produced by the circulation of poisoned blood in the brain. From the manner in which old visual impressions are reproduced in new combinations, and the intense vividness with which it is obvious to the bystander that these creations of his brain are *seen* by the patient, I can not doubt but that the same physical condition must exist in his sensorium as would be called up through his visual sense if the real objects were present; and, as all our information in regard to the *storage* of former impressions leads us to regard the cerebrum as the physiological seat of it, I think you will see how readily and simply all these phenomena find their expression in automatic cerebral action, translated into consciousness through the instrumentality of the *sensorium commune*.

(To be concluded.)

Original Communications.

REMARKS ON CASES OF KATATONIA.*

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By katatonia is to be understood a form of insanity first described by Kahlbaum† and characterized by alternate periods, supervening with more or less regularity, of acute mania, melancholia, and epileptoid and cataleptoid states, with delusions of an exalted character and a tendency to dramatism. The derivation of the word (*κατατονος*, *stretching down*) is taken by Kahlbaum to express the depressed mental and physical tension which is characteristic of the disease. From his monograph, from that of Dr. J. G. Kiernan,‡ of Chicago, the only writer in the English language on the affection, and from the observation of cases occurring in my own practice, I shall take the description I am about to give.

Katatonia may, like other varieties of insanity, be preceded by prodromic symptoms. There are pains or other abnormal sensations in the head, vertigo, insomnia, irritability of temper. Again, it may begin with an epileptiform convulsion, or the condition of melancholia or exaltation may be the first noticeable symptom. Then the cycle begins: Cataleptoid phenomena accompany or follow the

melancholia, which is generally of the form described as melancholia with stupor, and a period of excitement supervenes, during which the patient has sensorial derangements in the way of illusions and hallucinations as well as delusions. Again, the melancholia appears, perhaps, in a modified form, with cataleptoid and waxy conditions of the muscles, and a disposition to talk in an exalted or dramatic manner. At times, during the course of the affection, there may be convulsions or involuntary muscular actions, such as rolling on the floor or bending of the body. Masturbation is a common accompaniment, and during the stage of excitement acts of violence may be committed.

The further description of the symptoms will be best given by the detailed account of the cases that have come under my observation:

A merchant engaged in the importation of Vienna goods consulted me March 11, 1880, or rather I was consulted in regard to him by his brother and one of his partners in business, and the patient, very much against his will, was brought to my consulting-room.

He entered the apartment with all the air of a prince, and sat down without deigning to address me. When I spoke to him he at first made no answer, but on my persistence with my questions of what his name was and where he lived, he looked at me for a moment in a supercilious way and finally said, "And the Lord spake unto Moses, saying." This he kept repeating, whether spoken to or not, during the whole of his visit, extending over an hour. Upon inquiry, I ascertained that without assignable cause he had, eight days previously, suddenly passed into a condition of melancholia with stupor, during which he was most of the time silent and in a state of almost complete immobility. It was also noticed that, when anybody took hold of his hand, the member remained for several minutes in the position in which it was left. On one occasion his neck had continued twisted, with his face as far as it could be turned over his left shoulder, for over half an hour, and had then slowly returned to its natural position. On my taking hold of his arm and extending it at right angles with his body, and leaving it there, it remained outstretched for thirteen minutes, and then slowly descended to his side. All the time that I was making this and other examinations of his muscular system, he was saying in a loud voice, "And the Lord spake unto Moses, saying."

The pupils were equal, were largely dilated, and did not react well to light.

I requested him to follow me into another room, in order that I might make an ophthalmoscopic examination. He took no notice of what I said to him, and, when his friend and I raised him from his chair to lead him into the apartment, he made himself as rigid as a bar of iron, so that we had to carry him. Arrived there, he would not sit down, but stood as erect as a statue. On feeling his muscles, it was easy to perceive that all were in a state of extreme tension. It was impossible, I found, to make the examination I desired; so, after prescribing the bromide of sodium for him, in doses of twenty grains three times a day, I sent him away, with instructions to return in five days, and to continue the medicine till then.

* Read before the New York Neurological Society, March 6, 1883.

† "Klinische Abhandlungen über psychische Krankheiten," i. Heft "Die Katatonie," Berlin, 1874.

‡ "Katatonia," "Alienist and Neurologist," October, 1882, p. 558. This paper was originally read before the New York Neurological Society, May, 1877, and was published in the "American Journal of Insanity" for July, 1877.

On the 16th I saw him again. He was then in a state of high excitement. He entered the room without hesitation, and at once began an extemporaneous speech on the beauties of the solar system. Every sentence, however, he ended with the phrase, "And there shall be no night there." I wrote down from memory soon after his departure a portion of his address, as follows:

"And now, my friends, what is this solar system of which we have heard so much? And there shall be no night there. Is it composed of homogeneous matter throughout its whole extent, or are some parts of it different from others? And there shall be no night there. Is it to be supposed that the sun, a light-giving orb, is of the same physical structure as the moon, a light-reflecting orb? And there shall be no night there. Is the earth, a light-receiving orb, like the sun, a light-giving orb, and the moon a light-reflecting orb? And there shall be no night there"—and so on for half an hour.

Since his last visit he had had several spasmodic seizures without loss of consciousness, coming on before the cessation of the period of melancholia, which took place on the 14th of March. Since that time he had done very little else than to declaim from Shakespeare and other poets, and deliver extemporaneous addresses. He was disposed to be very quarrelsome, and had knocked the hat off a man's head on his way to my residence, because he thought the man had made a face at him as he passed. The convulsive seizures had consisted of movements of the head and of the muscles of the neck. The head, for half an hour or more, had on several occasions been kept in continued motion from side to side, while the face was undergoing contortions. One afternoon he had stood before an engraving of Washington and bowed for over an hour, and would have continued had he not been taken away by force.

On my asking him how he felt, he answered, "It's a wise child that knows its own father, but I feel quite well, I thank you." On my asking how he had slept the previous night, he replied, "It's a wise child that knows its own father, but I slept very well, I thank you." When I asked if he had any pain in his head, he said, "It's a wise child that knows its own father, but I have no pain in my head, I thank you." And so on, to every question I put to him.

Before he left, he began to speak in a staccato way: "I—think—I—shall—go—to—the—a—tre—to—night—to—see—Booth—in Ham—let."

I asked him why he spoke in that manner. He replied: "Be—cause—I choose—to do—as—I choose—to—do—and that—is—why—I speak—as—I—choose—to—speak."

"But," I said, "it is a silly way of talking."

"I—came—to you—for—med—i—cal—advice—and—not—for—a—les—son—in—el—o—cu—tion."

At this time there were the ophthalmoscopic appearances of cerebral congestion. The pupils were normal.

So far as I could ascertain, there had been no illusions or hallucinations, but there were delusions that he was to be made the director of the opera and manager of all the theatres, with a large salary from the State.

I directed the continuance of the bromide of sodium. On the 22d I saw him again. There was then a condition

of catalepsy, without marked melancholia. Though indisposed to talk, he would answer if the question were repeated. The arms, legs, and head were in a waxy state, and at times he would take dramatic attitudes and keep them for several minutes. He stood in my consulting-room for seven minutes as "Ajax defying the lightning," and for the like time as the "Apollo Belvedere." "The dying Gladiator" he could only maintain for a few minutes.

At the time there was no mental aberration of any kind, but there was a slight degree of exhilaration present which was not natural to him, and a slight disposition toward dramatism. This, however, did not extend to speech, but only to the attitudes which he would assume without prompting.

Under the continued use of the bromide, this state passed away in a few days, and there were no further manifestations of the disorder.

The next case that came to my notice was that of a young German, living in St. Mark's Place in this city, whom I saw in consultation with the younger Dr. Garrish. In this instance, the cataleptoid state and the tendency to utter high-flown language, and to assume histrionic attitudes, were strikingly exhibited. At the period of my examination the mental condition was that of excitement. The patient was talking volubly nearly all the time, walking the floor, gesticulating, grimacing, and occasionally speaking in alliterative verse. He had hallucinations of hearing, and would often stop and listen for an instant with a rapt expression of countenance. Then he would exclaim in pompous tones, "My lord, it shall be done!" This he repeated many times. He had passed through a stage of melancholy before I saw him. This had lasted a week or more, and during its continuance the patient mostly sat motionless in a chair, mute to all questions, and never taking the initiative in talking. Frequently, however, when spoken to, though he would not answer, tears would flow in profusion, and he would groan aloud. He afterward said that he had not spoken, because he had the idea that it had been decreed that, if he uttered a single word, his mother would at once die. I did not see this patient again, but was informed that he recovered under the bromide treatment advised. The pupils were contracted, and the optic disc and fundus of the eye congested.

The third case was that of a physician from a Southern city, who was brought to me by his friends, August 31, 1882. He was then in the stage of melancholia with stupor, attended with cataleptoid symptoms. He would not speak, but sat as long as allowed, motionless, with his eyes cast on the ground. If physical efforts were made to move him, his whole muscular system was thrown into a state of extreme tension. If the attempt were made to raise his arm from his side, for instance, the limb became rigid, and it was almost impossible to move it; at the same time there was no sign of any voluntary effort at resistance on his part. He sat as composedly as before on his chair, without a change of countenance, though the muscular strength brought to bear by him was certainly very great.

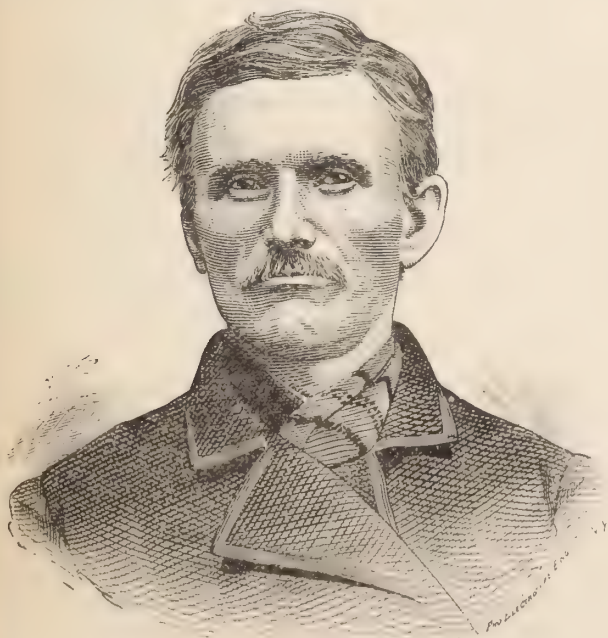
When I requested him to walk into an adjoining room, in order that I might make an ophthalmoscopic examina-

tion, he sat without moving a muscle. It was necessary to carry him, but, as soon as touched for that purpose, his body became perfectly rigid, and he could not even be made to sit down. He stood as erect as a statue. He appeared to be in a condition not unlike that of a person suffering from tetanus, in whom the slightest impression made upon the skin is sufficient to induce a spasm.

Previous to my seeing this patient, he had had repeated paroxysms of excitement, alternating with periods of melancholia, with stupor and cataleptoid phenomena.

After leaving New York, he improved to some extent, and would have improved still more, could he have been induced to take the mixture of bromide of sodium and fluid extract of ergot prescribed for him.

The only other case of katatonia that has come under my observation is that of a Swede, a man of about thirty years of age, who came to my clinique at the New York Post-Graduate Medical School February 15, 1883, and who formed the subject of a clinical lecture delivered to the class of medical practitioners in attendance. Twelve years previously, the man, while working in a stone-quarry, had a piece of timber fall upon his head. He was stunned for a few minutes, but the blow was not a serious one, and he recovered; subsequently, however, he had some head trouble, and did not speak for several weeks. All morbid symptoms disappeared, and he remained well till about twenty days before I saw him, when he became excited, thought people were going to kill him, that he had committed some crime, etc. This state only lasted a few days, when it was succeeded by a period of melancholy with stupor, during which he was mute, and sat nearly all day in one position. If his baby were put into his arms, he would hold it



for hours without moving his hands or otherwise changing his position. He never asked for food or appeared to care about eating. If his meals were brought to him, cut up, and put to his lips, he would sometimes open his mouth and eat; again, he would refuse. In my preliminary ex-

amination, I soon discovered the cataleptoid phenomena and the rigid state of his muscular system generally. Before the class, I stretched out one of his arms, and he kept it in a perfectly horizontal position for over ten minutes, when his brother, fearing he might be injured, put it down. Again, on trying to raise his arm, it was held so strongly against his side that it was impossible to move it. No answers could be obtained from him. He sat bolt upright, staring at vacancy without the least expression, unless it were one of slight astonishment, on his face. The engraving, made from a photograph taken that afternoon, shows the expression of his countenance admirably—an expression which is perfectly characteristic. This attack was supposed by his father to be due to grief caused by the death of one of his children about a month before. I prescribed the bromide of sodium in doses of thirty grains three times a day, and directed him to return in a week for further observation. On his return at the time fixed upon, the cataleptoid phenomena had entirely disappeared, but there was still a tendency to dramatism. He came again on the 1st of March, and was discharged cured.

Many cases of unrecognized katatonia are to be found reported in writings on psychological medicine. One of the earliest is the following:*

James W. L., aged twenty-nine, was admitted into the hospital May 10, 1821. This young man had been a patient in the hospital before, and had remained for twelve months, when he was placed in the incurable list; but, having got much better, and continuing to improve for some time, six months' leave of absence was granted him, at the end of which time he came back completely well, and was discharged cured.

The character and symptoms of this patient's disorder, it is stated, were extremely curious. When the paroxysm came on, however he happened to be situated, his whole form from head to foot became stiff, as if all his joints and muscles were ossified. His eyes, though staring open, became fixed, and he foamed at the mouth. If sitting or walking, when his fit came on, he would instantly fall to the ground, completely extended at full length on his back with the same symptoms of rigid stiffness and insensibility; his eyes, opened and inclined upward, were insensible to the touch of a hand passed over them, which did not produce the slightest wink. No symptom of animation remained, with the exception of breathing, but this so faint as to be scarcely perceptible. His condition, in all other respects, resembled death, and in this state he would sometimes continue for one, two, three, and even four days, without any apparent change. He could not be induced on these occasions to eat or take any kind of sustenance, except under the direction of medical gentlemen, when rich broths were administered by injection. During the fits his whole person was literally as stiff as a plank, and he might have been raised to a vertical posture and carried from place to place like a ladder without the least appearance of flexibility. Toward the termination of these paroxysms, when a hand was passed over the eyeballs, they would sometimes move, which was a prognostic of his recovery.

* "Sketches in Bedlam," etc., London, 1823, p. 155.

ery. On being roused from his stupor, he recollected nothing of what had passed, but he would speak of dreams, visions, heaven, hell, and the strange things he had seen. After these fits he always appeared weak and dejected.

Other cases of a similar character have been reported by Cullere,* Lagardelle,† and others, but without differentiating the affection now under notice, and without reference to Kahlbaum's monograph. The disease is more common in men than in women. Of twenty-six cases reported by Kahlbaum, twenty were in males. All of Kiernan's cases were in males, but this is explained by the fact that the asylum of which he was one of the medical officers had only male patients. All my cases were also in males.

Katatonnia is of rather favorable prognosis. It appears in the first stages, at least, to be a raw motor affection characterized by a paralysis of the vascular coats and by consequent cerebral hyperæmia. All my cases, except one, yielded readily to the bromide of sodium; that patient was not under my immediate care, and did not get the medicine prescribed.

THE STATUS OF THE MEDICAL PROFESSION IN THE STATE OF NEW YORK.

By HENRY G. PIFFARD, M. D.

Third Article.

HAVING considered briefly, but we believe accurately, the medico-political and medico-educational status of the profession in this State, we will now take up the question of its medico-ethical position and requirements.

As already noted, the earliest attempt at ethical regulation in this State was the adoption of the System of Ethics of the Medical Society of the State of New York in the year 1823, long before any other State had thought it worth while to move in the matter. This code remained in force until 1880. About the year 1850 the "Code" of the American Medical Association was also adopted by the State society, but without the repeal of the older code. The profession of the State were, therefore, under the guidance and governance of two distinct codes, the respective provisions of which were not altogether in harmony. Thirty-five years ago there were those who preferred the old State "System" to the "Code" of the American Medical Association; but, as by the adoption of the American Medical Association code there was a prospect of national unity on the matter, they yielded their preferences, and consented to be bound by both, thus accepting a measure of ethical responsibility in excess of that borne by the profession in any other State in the Union. At this time there was no other organized section of the profession to question the propriety of this code, or to propose the adoption of another. A few years later the homœopaths became organized, and acquired chartered privileges. They were, as already stated, an outcrop-

ping from the general profession, and thought best to follow its example and adopt a code. This code was an almost exact transcript of the American code, with the exception of the paragraph relating to the question of consultations. On this point they differed from the older code as follows:

"A complete medical education, of which the diploma of a medical college is the formal voucher, furnishes the only presumptive evidence of professional acquirements and abilities. But the annals of the profession contain the names of some who, not having the advantages of a complete medical education, became, nevertheless, through their own exertions and abilities, brilliant scholars and successful practitioners. A practitioner, therefore, whatever his credentials may be, who enjoys a good moral and professional standing in the community, should not be excluded from fellowship, nor his aid rejected, when it is desired by the patient in consultation. No difference in views on subjects of medical principles or practice should be allowed to influence a physician against consenting to a consultation with a fellow-practitioner. The very object of a consultation is to bring together those who may, perhaps, differ in their views of the disease and its appropriate treatment, in the hope that, from a comparison of different views, may be derived a just estimate of the disease and a successful course of treatment.

"No test of orthodoxy should be applied to limit the freedom of consultations. Medicine is a progressive science. Its history shows that what is heresy in one century may, and probably will be, orthodoxy in the next. No greater misfortune can befall the medical profession than the action of an influential association or academy establishing a creed or standard of orthodoxy or regularity. It will be fatal to freedom and progress in opinion and practice. On the other hand, nothing will so stimulate the healthy growth of the profession, both in scientific strength and in the estimation of the public, as the universal and sincere adoption of a platform which shall recognize and guarantee:

"1. A truly fraternal good-will and fellowship among all who devote themselves to the care of the sick.

"2. A thorough and complete knowledge, however obtained, of all the direct and collateral branches of medical science, as it exists in all sects and schools of medicine—as the essential qualifications of a physician.

"3. Perfect freedom of opinion and practice, as the prerogative of the practitioner, who is the sole judge of what is the best mode of treatment in each case of sickness intrusted to his care."

The additional sections of the homœopathic code so closely resemble those of the American code that they need not be quoted. They recognize the impropriety of advertising, of patenting surgical instruments, of practicing with nostrums, keeping secret the nature and composition of medicines used, etc.

A few years later, when the eclectics became organized, they also adopted a code—one that was likewise based on the American code, and differing from it mainly by reversing the intent of many of the most important sections of the older code as follows:

* "Observation de catalepsie chez un hypocondriaque persécuté," *Ann. méd.-psy.*, mars, 1877, p. 177.

† "Catalepsie consécutive à une manie aiguë," *Ann. méd.-psy.*, janvier, 1878, p. 38.

"ARTICLE III (*Eclectic Code*).

"Medical men have an undoubted right to bring themselves and their claims before the public by every fair and honorable means, as much as any other class of men. They may enter into general or special practice as they may consider best adapted to their interests or to their peculiar views; they may introduce themselves to the notice of the public by printed cards or other publications, by public or private lectures, or by the publication of certificates of cures actually performed. The presence of laymen at operations is by no means objectionable if both patient and operator shall consent, as it tends to make the skill and ability of the operator better known in the community, etc.

"ARTICLE V.

"A medical man having invented any surgical instrument, or discovered any new or valuable medicine, it becomes his capital, and it is not unprofessional for him to obtain a patent for the same. . . . A physician may employ, in his own practice, a medicine or compound known only to himself; it is his capital, and there is no authority in the land which can compel him to divide that capital among others by disclosing his remedy, save his own benevolence and philanthropy," etc.

Such is the "Code" of a body of men who would never have received governmental recognition if the educated members of the profession had not been engaging in a bitter internecine warfare.

This was the status of nominal ethics until within a recent period. The regular profession and the two sectarian bodies each had its code of ethics, differing from the others in the manner that we have seen. While the American code held sway over the great mass of the profession, sectarianism was increasing in power and influence. An evil which at its birth could have been easily controlled by wise measures was, on the other hand, injudiciously stimulated to an abnormal growth. For many years the American code had, in great measure, lost its vitality, and its edicts were not respected. One form of impropriety after another came to the surface, which it appeared unable to rectify or control. Eminent members of the profession began to violate not only its spirit, but its letter, and the corporate bodies of which they were members appeared unwilling or unable to subject them to discipline. About fifteen years ago the New York Academy of Medicine did discipline one of its members for consulting with a homœopath. Their experience on that occasion led them, quite wisely, to refrain from a repetition of the experiment. A few more such attempts would undoubtedly have led to the disruption of the Academy, and, in all probability, to a forfeiture of its corporate privileges. The suspension of the late Dr. Gardner from his rights as a Fellow of the Academy undoubtedly acted as a partial restraint on the other members of that body, and more especially on those who were comparatively young in the profession, or without sufficient influence to shield them from prosecution. As a matter of fact, two Fellows of the Academy permitted it to be publicly understood that they consulted with homœopaths, and would continue to do so as often as they

pleased. Despite this fact, these members have never been brought to the bar of the Academy for discipline.

In 1865 ethical affairs were in such a state in New York that the late Dr. Oliver White saw fit to send to the Comitia Minora of the county society a communication, from which I extract the following: "It is patent to us all, Mr. Chairman, and it is daily manifest, that members of our profession, once occupying honorable positions in it, have lost their standing among us by their own disreputable, dishonorable, and empirical practices, in violation of all medical ethics; and, inasmuch as we are not permitted by the laws of the State to discipline or expel unworthy members from the county medical societies, except through the courts; and, inasmuch as we deem it both just and proper that our county society should be the custodian of its own honor, and the conservator of its own morals—therefore do I earnestly entreat the Comitia Minora to draft a memorial to the Legislature of the State, praying that honorable body to grant the county medical societies throughout the State relief from the oppressive disabilities aforementioned; and that the Comitia ask the approval of the society to the proposed action in this matter."

The result of this action was the passage of the Medical Act of 1866, which gave the county societies almost plenary powers in matters of discipline. At the meeting of the county society, held June 4, 1866, a resolution was offered to the effect "that a committee of three be appointed to examine our list of members, and report the names of those whose connection with the society should be dissolved, and also what steps should be taken to accomplish this result." This resolution was referred, with others, to a committee of five, which met and considered the matters referred to them. This latter committee reported at the September meeting of the society that they could not purge the roll of membership as proposed, and recommended that "no further action be taken upon the matter at present," and requested "to be excused from further deliberation." This was certainly a rather impotent conclusion of the effort to purify the morals of the profession. Since then very little has been done in the way of attempting to check violations of the code.

This brings us to the year 1876, when the first open and bold proposal to repeal this code was made by Dr. J. Marion Sims, in his presidential address before the American Medical Association. From this address we extract the following:

"Here common sense and common interests have silently, almost imperceptibly, established a higher law that overrides the code and leaves it inert."

"The code of ethics is violated every day, either willfully or ignorantly, not only by the rank and file, but by men high in the profession—men who are considered leaders, advanced thinkers, and workers."

The proposition of Dr. Sims to abolish the code produced a profound sensation. Many thoughtful persons asked themselves whether the code as it existed, but unenforced, was doing any good, while others asked whether or not it was not doing absolute harm. It may be safe to say that by the majority Dr. Sims's proposition was looked

on with disfavor. At all events, no action was taken in support of it by the association at the time. This is not surprising when we consider the composition of this body, made up as it is of representatives from all parts of the country, very few of whom had examined the subject with any care. The hatred of sectarianism was so great that men seemed unable to calmly consider how it could be abated. Nothing was done. Shortly after this the writer found himself, as an officer of the county society, face to face with questions in ethics that must be met. The code was violated daily, both by those of high and low degree; but discipline was rarely asked for, except to gratify some personal malice. The two most obvious violations consisted in mixed consultations, and a striving after notoriety through the medium of the public press. These evils the officers of the society found themselves powerless to combat. This may appear to be a strange statement, but the facts are as follows: In reference to mixed consultations, the apparent spirit of the code was rendered nugatory by a change of base on the part of the homœopaths themselves. Their State society adopted a formal resolution,* in which they declared that for the future they would not adhere to the exclusive doctrines of Hahnemann, but would use such other methods as individually they saw fit. A careful comparison of this resolution with the consultation clause of the code makes it clear that the homœopaths had thus *technically* freed themselves from the ban, and that it would be impossible to discipline a member of the county society who should consult with them.

The second difficulty that embarrassed the Comitia was the matter of newspaper notoriety which certain members gained through "interviews," and through certificates given in favor of certain mineral waters, etc. This was a new form of impropriety, against which there was no provision in the by-laws of the society, and the Comitia were, therefore, powerless to take official cognizance of the matter. The president of the society, however, took on himself the burden of appealing personally to the offending members. Strange as it may appear, some of them referred him to the code of the American Medical Association, and claimed that their conduct was not only blameless, but praiseworthy. Curiously, an examination of this code appeared to support their claim. Under these circumstances, the Comitia had but one resource—namely, an appeal to the State society, in the hope that it would enact such laws as would enable the county societies to effectually deal with the evils referred to. Such an appeal was made to the State society, at its

* *Resolved*, That, in common with other existing associations which have for their object investigations and other labors which may contribute to the promotion of medical science, we hereby declare that, although firmly believing the principle *similia similibus curantur* to constitute the best general guide in the selection of remedies, and fully intending to carry out this principle to the best of our ability, this belief does not debar us from recognizing and making use of any experience, and we shall exercise and defend the inviolable right of every educated physician to make practical use of any established principle in medical science, or of any therapeutic facts founded on experiments and verified by experience, so far as, in his individual judgment, they shall tend to promote the welfare of those under his professional care." —Adopted by the Homœopathic State Society, February, 1878.

session in 1879. It was disregarded, and no relief was afforded by the State society. The Comitia, however, were not altogether discouraged, and requested the writer to correspond with the chairman of the proper committee of the State society and ask him to make a personal investigation of the matters in question. A lengthy correspondence resulted. It was early conceded that the American code did not afford protection against the rapidly increasing certificate nuisance, and, if this ought to be stopped, some new and more effective rule must be adopted. The matter of consultations, however, presented much greater difficulties in the way of settlement, as on it hinged the whole question of sectarianism and its influence for good or ill on the profession. The present writer's views on the subject were presented in the form of a letter under date of November 28, 1879. From this letter I shall now quote at some length:

"The question" (of sectarianism) "is a grave one, and demands serious examination at the hands of the enlightened members of the profession, and never more so than at the present time. The subject must be looked at in its several aspects, and regarded from the standpoints of medical politics, of doctrine, of utility, and of its present *raison d'être*."

"In respect to the medico-political aspect of the question, it may be stated that the existence of sectarianism in medicine is a great evil, perhaps the greatest that at present oppresses the profession, and tends to injure it in the esteem and respect of the public. The State has seen fit to recognize three kinds of practitioners, who are in the position of public antagonists, each claiming that the general methods of treatment pursued by them are superior to those employed by the others, and each decrying and speaking in derogatory terms of the others. The public is not competent to decide to which of these the greatest measure of merit pertains; and, in the majority of instances, the choice of a medical attendant is the result of considerations that need not be entered into at present. The public, however, interests itself to a greater or less degree in the controversial elements of the question, and the result is a certain distrust of and lack of confidence in all three."

"The venerable Hufeland, nearly fifty years ago, in a very able essay on the subject, pointed out the evils that would result from sectarianism in medicine, and anticipated the statement made in the last paragraph. He wrote: 'Nothing is, on the whole, more prejudicial to our art, nothing tends more to diminish public confidence in it, than a *public quarrel, and the public expression of a mutual depreciation of one another by its professors*. All who have the honor of the art at heart must lament such open bickerings, and do all they can to prevent them. The public is only too disposed to interest itself and to find amusement in them. Has it not already come to such a length that our dissensions are paraded on the stage, just as in the time of Molière? And do we not feel that just as the estimate of our art in general decreases, so every one, to whatever party he may belong, loses somewhat?' . . .

"If, now, it be granted that sectarianism is an evil, does it not behoove the profession to consult together as to the

best means to abate it? Before, however, this question is answered, it will be necessary to consider whether the abatement of this evil would bring about others that were still greater. The correct solution of this necessitates an acquaintance with a large number of facts, *pro* and *con*, which must be duly weighed, and the probable effects of any change in the present status carefully estimated. The opinion that I have personally formed is, that a certain amount of temporary inconvenience would ensue, to be followed by advantages that would more than counterbalance it. . . .

"If the abolition of legalized sectarianism is desirable, the methods of its accomplishment must be considered. To this end but two are known to me—namely, force and persuasion. Force has been tried, and has failed as regards the homœopaths. The more severe the exclusive enactments against them, the more they have seemed to flourish. The American Medical Association, in 1847, by the enactment of the consultation clause in the code, thought, by thus throwing odium on them, that the people would sustain the profession and refuse to employ the homœopath. In this the association was mistaken. . . . The action of the association, therefore, by excluding the early homœopaths from professional intercourse, simply caused them to unite the closer among themselves, each befriending and defending the other in time of need, and all uniting for the promotion of certain common objects, more especially the acquisition of the confidence of the people, and the attainment of governmental recognition. The measure of success that has attended their efforts we are all witnesses of to-day. It will, therefore, be readily granted that the policy of the association has not accomplished its object, i. e., the suppression of homœopathy, and I seriously question whether a continuance of this policy will not prolong and aggravate the present evils.

"Before, however, any other method be attempted, it is expedient that we should be accurately acquainted with the political and doctrinal status of the homœopathy, not of 1847, but of to-day, and we should more particularly regard the matter in its relations to the people and the profession of the State of New York. The homœopaths of this State may be divided into two pretty sharply defined groups. One group holds that the proposition "*similia*" is of great service in the selection of drugs where these agencies are requisite in the treatment of disease. They respect Hahnemann as a prominent promulgator of this doctrine. They reject, however, his theory of dynamization, they reject his peculiar views regarding the origin of chronic diseases, they reject his views as to dosage, and disbelieve or deny his statements concerning the efficacy of infinitesimals.* The other group of homœopaths pretend to hold strictly to all of Hahnemann's doctrines, and consider themselves his only genuine followers. An aggressive movement on the part of this latter party led the liberals

to a counter-movement, which resulted in the adoption by their societies of the resolution we have given above, and a decided split in their ranks.

"The regular profession has now an opportunity of settling the homœopathic difficulty in a very simple manner. Let it be understood that it is willing to receive into fellowship those who have practically abandoned Hahnemann's homœopathy, on condition that they also abandon the name, calling themselves, and permitting themselves to be called, *physicians* simply. It is probable that during the first year or so but a small number would avail themselves of the opportunity of joining the county societies. Later they would come in more freely. This would result in a return to the State of the chartered rights now possessed by them, and the removal of sectarian and offensive titles from the hospitals, dispensaries, colleges, and journals now controlled by them."

The above are the views that were held by me at the date that the above letter was written, and are in substantial accord with those that I hold to-day.

There is little doubt that, if this course had been pursued at that time, when the homœopaths were in so badly demoralized a condition, to-day there would have been no organized body, in this county at least, occupying an antagonistic attitude. The writer's position was, and is, that social and professional absolution be accorded to all who are willing to renounce exclusivism and unite with the main body of the profession.

In the number of this Journal for April 7th, pages 372 and 373, Dr. Flint would appear to be willing to go even further, and accord professional recognition to all, whatever their belief or practice, provided only they discontinued their connection with sectarian societies.

In our next we will continue the historical exposition of the subject.

SOME PRACTICAL REMARKS ON THE REMOVAL OF FOREIGN BODIES FROM THE EAR.*

By SAMUEL SEXTON, M. D.

It is not my purpose to go into any extended study of this subject, but I shall hope to draw attention to some practical points in the treatment of foreign bodies in the ear, drawn in part from my own experience. Of course, I have but little to offer that has not been already presented by other authorities, but a subject of the importance that foreign bodies in the ear very often assume in practice can not very well become too familiar to our minds. Although the expert may usually find but little difficulty in the removal of foreign bodies from the ear, unless, indeed, the case has been previously badly treated, yet the operation is not always simple to those who are generally the first to see them. It is to the latter that my remarks are mainly addressed.

As regards this trouble among adults, there need be but little said, since they are not in the habit of putting foreign

* "The homœopathy of to-day has also shaken from its feet the dust of more than one worthless theory. Although within its ranks are still numbered some so-called high dilutionists, its leaders have long ceased to insist upon infinitesimal dosage as an essential principle of treatment."—BEARD, "Popular Science Monthly," Feb., 1883.

* Read before the Medical Society of the State of New York, February 6, 1883.

bodies into their ears; and, unless the person is from some cause very nervous, their management is not usually difficult. To this statement one exception should, perhaps, be made—namely, that lunatics are well known to have the habit of stuffing cotton, wool, or pellets of almost any substance, into the ears, for the purpose, it is believed, of keeping out unpleasant noises. The habit of thrusting pencils into the ear sometimes is attended by the mishap of a separation of the mounting, an accident not often met with among women, for they usually employ a hairpin in scratching the ear—an instrument well adapted to the purpose if properly used. I have been frequently requested to remove pins which have been lost in the ear, and quite often an examination has failed to discover any. On one occasion, however, I found that the pin, which proved to be a short one, having slipped head foremost from the patient's fingers into the ear, had, after vigorous efforts at removal, been buried at the point well into the cartilaginous portion of the canal. The swollen integument made manipulations exceedingly painful. It was not deemed safe to seize the pin with forceps and liberate its point by pushing it back, for this manœuvre would endanger the membrana tympani. But either this risk must be taken, or the integument of the canal must suffer certain laceration; the latter was regarded as the least of the two evils, and I therefore seized the pin, as far back as possible, with stout forceps, and, after lifting it up as far as the superior wall of the canal would allow, the point was elevated by a probe placed underneath; the exercise of slight force now secured its liberation.

The living insects and vermin which sometimes find their way into the canal are generally disposed of by syringing, as are also the larvæ which are developed in certain cases of otorrhœa.

Sea-shells and sand are quite often lodged in the ears of surf bathers, and in some instances the sand settles into the cul-de-sac formed by the downward curve of the canal where it joins the membrana tympani. I have found my foreign-body forceps of service in removing these small shells.

The class of cases, however, from their frequency and great practical interest, which are entitled to most consideration are children with small objects in their ears. To enumerate the various articles that have been found in the ears of young people would make a long list, including specimens from almost every department in domestic economy. I may be permitted to state here that it is not altogether an unnecessary precaution in these cases to first make sure of the presence of a foreign body in the ear before making efforts at removal, for it is well known that the ear has been often much injured by injudicious probing after fancied objects where parents were quite positive that a foreign body was present. The statements made concerning the character of objects is likewise misleading in some cases; thus, a child, two years old, was brought to me the other day, and I was shown quite a large oval-shaped porcelain button, with the remark that the child had put a similar one into the ear. The first examination convinced me that no such object was in the patient's ear; but there was found a piece of glass, which, fortunately, had not been disturbed by the family physician, to whom the case had

first been taken with the above puzzling statement. A bent silver probe was sufficient to dislodge the piece of glass without any injury to the ear, while the child was slightly anæsthetized.

It seems scarcely necessary to urge upon any one the necessity of securing proper illumination before attempting any operative procedures in these cases; but, with a small forehead mirror, even a candle or any small lamp will afford light enough for an examination. A very good light, however, is required if an operation is necessary. I think it is a good plan in most instances to make the first examination without instruments, if possible; in this way we may decide whether an anæsthetic is necessary without alarming the child. I am very much in favor in these cases of placing the patient supinely upon a rather high table, while the operator occupies a low seat. This position is not only a comfortable one for the child, but, if the ear be turned downward as much as possible during manipulations, we have the advantage of the tendency of a loose body to gravitate downward. In cases where a loose object lies in the canal, the patient may lie quietly while a delicate hook—one improvised by bending a silver probe often does well enough—is employed



FIG. 1.

to gently pull it out, or the author's combined hook and curette may be employed (Fig. 2). But, should there be any struggling, one had better desist at once, for fear of pushing the object farther in, although there may be room enough to pass the bent probe or a steel hook between the object and the walls of the canal. The patient may now be forcibly held while a small but strong stream of water is thrown into the ear by a syringe, the stream being directed through the opening with sufficient force to carry the object out of the canal by the return current. I am in the habit of

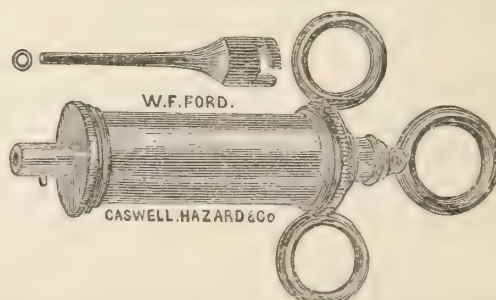


FIG. 2.—SYRINGE FOR THE REMOVAL OF FOREIGN BODIES OR INSPISSATED CERUMEN.

examining the ear after each syringeful has been injected, in order to ascertain the result of these efforts. Timid syringing here may be not only ineffectual, but it may even secure a further impaction of the object. It must, however, be borne in mind that even syringing is by no means always a harmless procedure, and that rupture of the membrana tympani may be thus caused. A case of this kind occurred in a patient who came to consult me from Alabama for a long-standing

otorrhœa. He informed me that the trouble had its origin in youth, and was due to the violent syringing done by a physician to whom he was taken for the removal of a foreign body from the ear. The instrument used was a large enema syringe, the first discharge from which knocked him down. The purulent discharge complained of was soon afterward established.

Should the foreign body entirely fill the canal, or should hooks or syringing be inadvisable, for the reasons stated, it is well to place the patient under ether before making attempts at removal, for a simple state of things may be easily converted into a complicated case where extraction is attempted in a struggling patient.

When accidents of this kind occur where the conveniences for giving an anæsthetic are not at hand, and proper instruments are also inaccessible, the foreign body should, I think, be let alone, unless the operator is sure of success, until every emergency has been provided for, not heeding the urgent demands usually made by parents and others for immediate action. Usually several kinds of forceps, a syringe, hook and curettes should be at hand, as more than one instrument is frequently required. In the greater number of cases the foreign body is easily dislodged by either curette or forceps; but should it be found that only by lacerating the canal in some degree could the foreign body be started, we may keep in mind the fact that usually the parts readily heal after very considerable injury has been sustained; and, therefore, if our object can be thus attained and all injury to the middle-ear avoided, we are, I think, warranted in acting with considerable energy. Let it be understood that I should only think of sacrificing to some extent the integrity of the canal in cases where the operation is sure to be completed, for afterward there will be swelling of the walls of the canal, the foreign body, if left, soon becoming tightly embraced, and the condition of the patient worse than if nothing had been done.

One word in conclusion concerning cases which are brought to the consultant after fruitless efforts have been made at removal. It has often been my experience to find that in such cases the foreign body has been pushed down upon the membrana tympani, which in too many instances has already been ruptured. The canal in these cases is usually found to be more or less lacerated and swollen. Where the membrana tympani has been ruptured, a discharge takes place from the middle-ear, and there is oozing of blood and serum from the walls of the canal when it has been wounded. Under these circumstances the operator must act with much caution, for the patient's friends are now even more urgent than at any previous time respecting the removal of the foreign body.

My first thought in these difficult cases is to, first of all, make sure that a foreign body is really present, for in several instances I have found the ear very much injured by efforts made with hooks, etc., to remove a foreign body where none was present.

If, however, the intruder is discovered, and lies against the membrana tympani, or very close to it, we can not always pass an instrument behind it without danger of rupturing the membrane. My own experience in these cases,

which has been considerable, is that, so far, since employing my foreign-body forceps, I have been fortunately able to remove such bodies by seizing them with the forceps and thus making traction. Should this be found impossible, rather than rupture the membrane by the use of hooks or curettes, I would advise delay in the majority of cases while attempts were being made to reduce the inflammation of the parts; for, when this has been accomplished, efforts at removal might be successful. When the foreign body lies at a safe distance from the membrane, one should, of course, avail himself of hooks or curettes as well as of the forceps, for they are often more serviceable.

Book Notices.

BOOKS AND PAMPHLETS RECEIVED.

Insanity: its Causes and Prevention. By Henry Putnam Stearns, M. D., Superintendent of the Retreat for the Insane, Hartford, Conn., etc. New York: G. P. Putnam's Sons, 1883. Pp. xii-248. [Price, \$1.50.]

A Manual of Auscultation and Percussion; embracing the Physical Diagnosis of Diseases of the Lungs and Heart, and of Thoracic Aneurysm. By Austin Flint, M. D., Professor of the Principles and Practice of Medicine and of Clinical Medicine in the Bellevue Hospital Medical College, etc. Third edition, revised. Philadelphia: Henry C. Lea's Son & Co., 1883. Pp. 242.

How to Examine the Chest. A Practical Guide for the use of Students. By Samuel West, M. D., M. R. C. P., etc. Philadelphia: Blakiston, Son & Co., 1883. Pp. xii-200. [Price, \$1.75.]

Brain Rest. By J. Leonard Corning, M. D., formerly Clinical Assistant to the Manhattan Eye and Ear Hospital, etc. New York: G. P. Putnam's Sons, 1883. Pp. 103. [Price, \$1.00.]

Transfusion: its History, Indications, and Modes of Application. By Charles Egerton Jennings, L. R. C. P. Lond., etc. London: Baillière, Tindall, and Cox, 1883. Pp. viii-69.

Modificacion de la Seccion Recto-vesical sin Lesion del Esfincter del Ano, de la Prostato Rudimentaria en este caso, ni de la Parte Membranosa de la Uretra. Por el Doctor Ernesto Below, de la Imperial Universidad de Greifswald. Mexico: Filomeno Mata, 1882.

Is Craniotomy Justifiable? By E. E. Montgomery, M. D., Obstetrician to the Philadelphia Hospital. [Reprint from the "Philadelphia Medical Times."]

The Opium Habit; its Successful Treatment by the Avena Sativa. By E. H. M. Sell, M. D., Fellow of the American Academy of Medicine, etc. Jersey City, 1883. Pp. 32.

THE DURATION OF MEDICAL STUDY IN GERMANY.—According to the "Union médicale," an association of physicians in Munich have petitioned the Federal Council to prolong the time of study required of candidates for the degree of doctor in medicine, stating that, whereas only four years are now demanded in Germany, the period of undergraduate study is five years in Austria, and six years in Holland and the Scandinavian countries.

MUSIC AS A THERAPEUTIC AGENT.—At the request of the chief medical officer of the military hospitals of Paris, a regimental band has been detailed to play at each of the three hospitals, one day in the week, for an hour. The hope is entertained that the effect upon the sick soldiers will be to hasten their convalescence.

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THE NEW VOLUME FROM THE SURGEON-GENERAL'S OFFICE.

OFTEN as we have referred to the good work that has gone out to the world from the Surgeon-General's office, we think no apology necessary for giving prominence to a few words in praise of the surgical volume of the third part of "The Medical and Surgical History of the War of the Rebellion." Like the preceding volumes of this great work, the portion now before us, prepared under the direction of the late Surgeon-General Barnes, by the late Surgeon George A. Otis and Surgeon D. L. Huntington, forms part of a literary undertaking seldom exceeded in magnitude, and never, so far as our knowledge goes, in accuracy, in comprehensiveness of detail, or in thoroughness. It may be questioned if these volumes, side by side with those thus far issued of the "Index-Catalogue of the Library of the Surgeon-General's Office," have not done more than all other recent agencies combined to raise American medicine in the estimation of the world. Nor has this result been due solely to the literary skill with which the work has been done; unless there had been a great mass of observations and achievements worth recording and analyzing—the combined experience of hundreds of our colleagues called from all quarters of the country to apply themselves to the unaccustomed practice of military medicine, and of the little band of men that made up the medical corps of the regular army at the outbreak of the rebellion—no "Wizard of the North" could so have illumined the pages of the work as to make it, what it really is, the *chef d'œuvre* of military medicine.

The volume comprises Chap. X, on Wounds and Injuries of the Lower Extremities, over six hundred quarto pages; Chap. XI, on Miscellaneous Injuries, rather more than forty pages; Chap. XII, on Wounds and Complications, about two hundred pages; Chap. XIII, on Anæsthetics, twelve pages; Chap. XIV, on the Medical Staff and *Materia Chirurgica*, twenty-four pages; and Chap. XV, on Transportation of the Wounded, sixty-six pages. The reader's interest will center to a very great extent in the long chapter with which the volume opens. Although dealing largely in statistics and casuistics, and abounding in tabular matter, it embodies a great deal of analysis and reasoning of the highest order.

Like its predecessors, the volume is profusely illustrated with woodcuts, photographs, and lithographs, many of the latter being in colors. All of them are well adapted for the particular purpose in hand. Of the colored lithographs, plate XXV seems to us specially to be commended. It shows an inflamed knee joint laid open, displaying the articular surfaces of the patella and the lower end of the femur. Of the plain litho-

graphs, most of which we think more praiseworthy than the colored ones, we have been particularly struck with the beauty of plate LXX, showing four femoral involucra. Scarcely less meritorious are plate LV, giving two views of a femur as it appeared several years after the repair of a gunshot fracture at its upper portion; plate LXXII, representing two involucra of the tibia and fibula; plate LXII, giving a picture of the lower end of a femur with a musket-ball lodged in its medullary cavity; and plate LXIX, figuring four tubular sequestra of the femur after amputation.

We beg to congratulate the medical corps of the army on the progress of their great task. We need not assure them that their work is not in vain, for the one judgment of it everywhere is in the highest degree commendatory and appreciative.

THE ASSOCIATION FOR THE ADVANCEMENT OF THE MEDICAL
EDUCATION OF WOMEN.

THIS organization was formed a few years ago, with the general idea, as we understood, that the medical profession of New York, which had frankly admitted women to its ranks, contained some gentlemen who were willing to go further, and, by means of such an association, comprising themselves, a number of the members of the faculty of the Woman's Medical College of the New York Infirmary, and a few non-medical persons who took an interest in promoting the practice of medicine by women, to give the college the benefit of their advice and assistance in its work. Contributions of money were made by the members of the association, sessions were held at which methods of instruction and ways and means of raising funds were discussed, and committees made elaborate reports on both these topics.

The association seems to have met with a very fair measure of success, if we may judge from a report recently issued in behalf of the executive committee by the president, Mary Putnam Jacobi, M. D., for it has been able to pay a professor of histology and a lecturer on *materia medica*, the latter serving also as a laboratory teacher of chemistry. The president is enabled to state, also, that "the large gynæcological clinics at the dispensary and infirmary afford opportunities for practical study in this especial branch of medicine such as are obtainable by no male medical students in this city."

As regards the moral success of the movement, she mentions "the encouraging signs of increasing liberality on the part of the medical profession in New York toward women in medicine. They are admitted at least in the audience of all the medical societies in the city, and to membership in all but—*mirabile dictu!*—the obstetrical. They are freely met in consultation; they enter freely into hospitals." We can not say whether or not women are excluded from the obstetrical section of the Academy of Medicine. If they are, the implied complaint conveyed in the exclamation "*mirabile dictu!*" we concede to be justified; but, if reference is made to the Obstetrical Society, it should be borne in mind that that is a private society, of limited membership, and that it does not expressly exclude women. If in individual instances women have applied for membership,

and have failed to be admitted, it is doubtless for reasons which do not at all imply that the members regard it as improper for women to belong to an obstetrical society. Something beyond the mere question of eligibility is always taken into account when an applicant appears before a private society. We therefore think that the president need not have felt compelled to score a failure for her association on the ground that no woman had yet been admitted to the Obstetrical Society. On the whole, it seems to us that those women who have chosen to become practitioners of medicine in New York have been accorded as fair a field as they could reasonably have hoped for.

SANITATION IN THE MISSISSIPPI VALLEY.

THE vexed question of details in the work of guarding against the spread of epidemic diseases in the valley of the Mississippi has, we trust, been materially advanced in the direction of a satisfactory solution by a recent meeting of the Sanitary Council of the Mississippi Valley, held at Jackson, Miss. We wish to acknowledge our indebtedness to Dr. J. H. Rauch, of the Illinois State Board of Health, for advance sheets of the proceedings. Although a voluntary organization, the association is so thoroughly representative of sanitary bodies in the West and Southwest that its action concerning such matters as it dealt with on this occasion may be taken as an earnest that there is now to be less clashing than heretofore in regard to the practical execution of measures designed to check the conveyance of infection through trade channels. This inference is strengthened by the fact that the meeting was attended by a number of gentlemen connected with the railway system and various commercial boards of the Southwest, several of whom took an active part in the proceedings.

The hope seemed to be entertained that the National Board of Health would be intrusted with the disbursement of the sum of a hundred thousand dollars appropriated by Congress to be expended in sanitary work at the discretion of the President and through such channels as he might determine, and the trust was expressed that harmony would be established again between that organization and the Louisiana board. The following memorial to the President was resolved upon:

We, a committee appointed by the SANITARY COUNCIL OF THE MISSISSIPPI VALLEY, at its fifth annual meeting, in the city of Jackson, Miss., April 3-4, 1883, do humbly but sincerely petition that the fund of \$100,000, to be used, with your approval, in the event of an outbreak of yellow fever or other epidemic disease on the coasts of our country, be placed at the disposal of the National Board of Health. That body can give confidence to the people of the Valley as to the necessary precautions and safeguards yearly demanded by the exposure of our Southern ports to the ravages of yellow fever. Their inspection stations and the mode their officers have adopted in isolation and disinfection, establishing quarantine only when emergency or occasion demands it, have earned for the National Board a degree of confidence that of itself alone is worth millions of dollars to the commerce of the country. To supplant this body or withhold from it the necessary funds to

maintain inspection stations at all exposed points will, in our humble judgment, clog the wheels of commerce by bringing about a feeling of distrust on the first alarm, be it true or false, and cause recourse to the shot-gun policy of quarantine, which can but prove destructive to the commercial interests of the Mississippi Valley, which in a measure affect those of the entire Union. With these views, submitted with full faith and appreciation of the solicitude you must feel for the welfare of the public health, we herewith subscribe ourselves your most humble petitioners.

We have accounts of a preference having been expressed by various sanitary organizations in the Southwest for a continuance of the Marine-Hospital Service in the management of the funds referred to, so that the question as to a choice between that service and the National Board of Health can not be considered as set at rest by the Sanitary Council's memorial, but it can be said of it that it is temperate and quite free from the air of truculence which has pervaded many of the resolutions by which some medical meetings have endeavored to bolster up the National Board of Health, and that it should tend materially to do away with the acrimonious feeling of which there has been some evidence on the part of certain sanitary bodies.

THE MEDICAL SOCIETY OF THE STATE OF PENNSYLVANIA.

NEXT Wednesday, as we briefly notified our readers last week, the Medical Society of the State of Pennsylvania will begin its thirty-fourth annual meeting, at Norristown. The address in medicine will be given by Dr. James Tyson, of Philadelphia, at the afternoon session of the first day, the address to be followed by five scientific communications. In the evening the president, Dr. William Varian, of Titusville, will read his annual address. At the Thursday morning session Dr. A. Craig, of Columbia, will deliver the address in surgery, and six communicated papers will follow. In the afternoon the address in obstetrics will be read by Dr. G. O. Moody, of Titusville, and the address in hygiene by Dr. Henry Leffmann, of Philadelphia. Five papers will occupy the remainder of the afternoon. On Friday morning Dr. John Curwen, of Warren, will deliver the address in psychiatry, which will be followed by three papers. At the afternoon session Dr. B. Lee, of Philadelphia, will present the report of a committee on the codification of lunacy laws, and three papers will conclude the scientific work of the meeting.

The list of papers volunteered is varied and attractive. Regretting that we have not space to enumerate them all, we will mention a few of those that are likely to prove specially notable, namely: On the duration of the protection afforded by vaccination, and on the efficacy of revaccination, by Dr. William M. Welch, of Philadelphia; on typhlitis and perityphlitis, by Dr. William Pepper, of Philadelphia; on the thorough removal of cancer of the breast, by Dr. S. W. Gross, of Philadelphia; on the medical service of lunatic hospitals, by Dr. Charles K. Mills, of Philadelphia, together with another on the same subject, by Dr. Samuel Ayres, of Pittsburgh; on surgical expedi-

ents in emergencies, by Dr. R. J. Levis, of Philadelphia; on the care of the hair, by Dr. J. V. Shoemaker, of Philadelphia; and on convallaria maialis, by Dr. Edward T. Bruen, of Philadelphia.

THE GROSS PROFESSORSHIP OF PATHOLOGICAL ANATOMY.

WE learn from the "College and Clinical Record" that the Alumni Association of the Jefferson Medical College, of Philadelphia, has taken measures to found a professorship of pathological anatomy in the college, to be named in honor of the venerable Professor Samuel D. Gross. In these days, when one book supersedes another with such rapidity, it may not be known to many of our readers that in the earlier part of his career Dr. Gross wrote a treatise on pathological anatomy that for several years remained the standard American text-book of that branch of study. From this fact there is a peculiar fitness in the method determined on, quite apart from the general propriety that the alumni of the college in which Dr. Gross has labored so long and with such signal advantage to its interests should in some way devise means to honor his name so long as the institution continues in its course.

Dr. Richard J. Dunglison has been made the custodian of the fund which is to be subscribed, and measures have been taken to bring the matter to the attention of all graduates of the school so far as they can be reached by circulars. In view of the possibility that this journal may be read by some of the alumni whose addresses are unknown to the trustees, we would suggest to them that they would do honor to themselves as well as to their alma mater were they to take part, without exception, in contributing to the realization of this most excellent plan. We have no doubt that they will do so very generally, and, in view of the great number of the alumni in various parts of the country, and of the *esprit de corps* that binds them to each other, thanks in great measure to our contemporary, there ought to be no possibility of a failure to obtain the required fund within a short time.

NEW YORK AS A MEDICAL CENTER.

WHEN one reflects upon the figures that we gave in a recent number of the journal and realizes that, in summing them up, very nearly 400,000 patients applied for medical relief at the various of our city and suburban charitable institutions during the course of a single year, the immensity of our present clinical wealth is fairly indicated. But we are not rich in numbers only. We excel also in density of disease, and our hospitals and infirmaries testify to it. But why should they not? Situated as we are upon the greatest of through lines between Europe and the populous countries of the East, there is a constant tendency for all intermediate points to furnish their quota to swell the aggregate of our population; and this concourse of nationalities reacts upon medicine, furthering the study of it by increasing the opportunities for clinical experience. Nor have physicians been slow in appreciating that New York is rapidly becoming one of the great centers of the world. At no time has there been a greater inpouring of out-of-town practitioners, and at no time have they shown a greater zest in seeking the advantages that are now so peculiarly prominent. And we are only just in crediting some of our medical colleges in this city with being

the first to conceive and organize a plan by which our clinical resources can be utilized in larger measure than has been possible heretofore.

The New York Post-Graduate Medical School, now entering upon another term of medical instruction, has been in existence about eleven months. Its birth was due to the fact that a body of active and professional men realized that the undergraduate medical schools of the city could not in their present status carry out a successful system of post-graduate medical instruction. It was founded without outside capital or appeal for lay support, and the substantial success of the scheme, we are glad to learn, is now assured by the members and quality of the matriculates, and its own financial strength. Equipped with a force of thirty-seven regular teachers and a score or more of auxiliaries, it has practically demonstrated that a practitioner may actually see a greater rarity of diseases in an ordinary seven weeks' course at the school than is often his lot during the prescribed term of his studies or in years of active practice. Resolutely admitting no undergraduates and conferring no degrees, the school has won the approbation of our medical colleges, whose teachers have given substantial proof of their satisfaction in its work by an assiduous attendance upon many of the courses. The embryonic physician who now leaves his alma mater, diploma in hand, may, therefore, receive the encouragement of his former teachers in entering upon his post-graduate instruction to complete the medical environment that will be necessary to fit him properly for his life-work.

As our columns have so often been devoted to the abuses of medical charities, it is worthy of note that this institution has solved certain elements of the question by devising a plan of medical relief that is satisfactory alike to physician and pharmacist. No patient is admitted for treatment if he can pay a physician's fee and buy his own medicines. Applicants are designated as worthy only when they are absolutely poor, or can pay a small sum for medicines. In such cases the charge for the medicine is adjusted by a regular scale. During the term just completed, we are informed that 5,568 patients have been rendered available for purposes of clinical instruction. This number, which indicates an average of over 900 patients a month, demonstrates that there has been no lack of material at command. We understand that this number could have been indefinitely augmented if it would have conduced to the success of the school. Almost all our prominent hospitals contributed more or less to a scheme that may now be said to be established upon a sound, substantial, and practical basis.

A CHOLERIFORM DISEASE IN MEXICO.

AT the late meeting of the Sanitary Council of the Mississippi Valley, Dr. J. H. Rauch, of Chicago, called attention to the prevalence of a cholera-like affection prevailing in some portions of Mexico, and suggested the necessity of vigilance on the part of the Gulf and Rio Grande authorities concerning the possibility of its spreading across the frontier.

RHABDO-MYOMA OF THE PAROTID GLAND.—In the "American Journal of the Medical Sciences" for April, 1883, Dr. T. Mitchell Prudden records a new case of a heterologous rhabdo-myoma, which presented some unique and significant features both in structure and in position. The tumor was intimately connected with and involved the parotid gland, and presented the usual peculiarities of structure of the rhabdo-myomata. In addition to this, it contained structures which the writer feels justified in considering as atypical rudimentary lobules of the parotid gland—atypical not only in structure and development, but in their distribution through and association with the incompletely developed muscular tissue.

Proceedings of Societies.

NEW YORK SURGICAL SOCIETY.

(Meeting of March 13, 1883, concluded.)

Dr. SANDS said that he thought the rule followed by Dr. Poore of postponing the operation of excision until the disease has reached a chronic stage was better than the opposite rule of early interference. As already remarked by Dr. Poore, the cases which are seen in hospital practice are usually of an aggravated character, and, as a rule, have already been subjected to the rest treatment, and often treatment by extension without avail, before they are admitted. He supposed, however, that all would agree that, until these milder methods had been found to be unavailing, excision should be withheld; for it was a fact that in private practice, where ample means were at our command, a very large number of patients with hip-joint disease recovered, either with entire restoration of the function of the joint in a few cases, or with ankylosis in other cases, thus obviating the risks attending excision of the bone. But, as Dr. Poore had remarked, when abscesses had formed and sinuses existed, and there was every indication that nature could do no more, and when by postponing an operation the general health of the patient became more impaired and secondary changes, in the liver and kidneys especially, became probable, excision seemed to be the only expedient to which surgeons could resort. It did not seem to him that the indications in hip-joint disease were different from those of disease in other joints in which there was no question with regard to the propriety of surgical interference. His experience corroborated Dr. Poore's in this particular, that usually there was very decided amelioration of symptoms after the performance of excision, and it would seem that this was more certain to occur now than formerly, when we paid less attention especially to drainage, and had not the advantage of antiseptic surgical dressings. He had operated twice within the last six weeks for excision of the hip joint. Both patients were children—one a girl six years of age, the other a boy nine years of age. Both had been under observation for one year, and had well-marked disease with abscess when they entered the hospital. In both the operation was postponed, in the hope that the abscesses would disappear, but the general health of the children began to give way, and it was very plain that the disease would proceed to an unfavorable termination if left to pursue its natural course. In both cases the acetabulum had been perforated, and the extent of destruction reached nearly as far as the level of the trochanter minor. In both cases the femur at the point of section showed signs of osteitis, and in both the improvement after operation was very marked, although in one more so than in the other. The boy, whose appetite had already entirely failed, and whose pulse was very rapid, improved so much that he was able to eat, immediately after the operation while his pulse was very much diminished in frequency. In the girl the shock of the operation proved severe for a few days, but after that her general health began to improve, and the improvement had continued. He thought that surgeons should not abstain from the operation because a radical cure was not very likely to take place. It seemed to him that the palliation afforded by the operation was sufficient to justify its performance. Respecting complications in bad cases, such as degeneration of the liver and kidneys, while it was a general fact that such complications were fatal, it occasionally occurred that the enlargement of the liver either diminished or disappeared entirely. He could recall one case, that of a lad twelve years of age, upon whom he operated in 1870, and in whom a very bad state of affairs existed at the time of the operation. There were extensive

abscesses and sinuses, and there was disease of the head of the bone and of the acetabulum—the latter, however, not perforated—and the general condition was such as to give but little expectation of a good result. But the wound healed, and, although afterward it reopened, no dead bone could be found. Finally, permanent closure took place about one year after the operation. Soon afterward the urine became albuminous, and two years later there was a very decided tumor in the abdomen, evidently formed by an enlarged liver. The boy had remained anæmic ever since the operation was performed, and, although albumin still continued to be present in moderate quantities in the urine, the enlargement of the liver had disappeared, and the lad had grown to be a man, was now fairly well, and able to walk without any assistance except that derived from a thick-soled shoe. The parents were still living, and in excellent health. There was no hereditary tendency to tubercular disease.

Dr. J. C. HUTCHISON remarked that a few years ago there was a great disposition to excision of the head of the bone in cases where it would seem that the patients would recover without it. The tendency, however, had turned in the opposite direction, and probably many cases which should be operated upon were neglected until it was too late. It seemed to him that, where the disease had resisted all the usual treatment, such as rest, extension, etc., and abscesses had formed, and the patient was gradually growing worse, and especially where there were some evidences of amyloid degeneration, the operation was clearly indicated. He had seen a great many patients recover under the most adverse circumstances, with ankylosis, of course, and sometimes the deformity was such as might subsequently be remedied by an operation.

Dr. BRIDGON had seen a number of cases like those reported by the author of the paper, and he thought that the majority of those in which perforation of the acetabulum had occurred terminated fatally. Cavities resulting from accumulations of pus within the cavity of the pelvis were difficult to drain. He had one specimen in which the perforation was large enough to have allowed the passage of the head of the femur, but it was not displaced in that direction. The most favorable result he had seen was in a case of a child eleven months old. The excision was done in the Presbyterian Hospital. One year after, the shortening was a little over a quarter of an inch. All the movements of the joint were free. The sinuses were closed, and the patient was now in robust health, and an inmate of the Institution of St. John'sland. In all the cases that he had seen, the patients were the children of tuberculous parents. In one case of long standing, in which the patient had recovered from the effects of the active process of the disease, he had judged that the caries had ceased, and that the numerous sinuses which refused to heal were kept open by the presence of a sequestrum. An explorative operation was done; the head and neck were gone; the acetabulum was filled with bony growth, in the center of which was an imprisoned mass of necrosed bone. In that case the sinus persisted for a long time after the removal of the offending cause. He had recently seen a young woman who was in the Presbyterian Hospital four or five years ago. All her sinuses had closed, and at times she could get about with tolerable comfort; but for a large portion of the time she was confined to her bed by pain. She had for some time suffered from diarrhœa, and he thought it possible that these discharges might indicate that the external sinuses had closed because the pus had sought an outlet through the acetabulum and rectum; but an investigation in that direction did not sustain the suspicion. Would not the symptoms in this case warrant an explorative operation?

Dr. SANDS asked Dr. Bridgdon if he meant to say that the children in his cases had tubercular disease.

Dr. BRIDGON replied that all these children were the offspring of parents suffering from phthisis, and that, although in most of them there were no evidences of visceral tuberculosis, he believed that the caries was tubercular, and he was inclined to think that we were coming back to the idea that tubercle was the cause of many of the cases of disease occurring in the cancellous structure of bone.

The PRESIDENT remarked that, in deciding the question whether in any given case excision should be performed, he believed a much safer conclusion would be reached if the possibilities in these cases were always borne in mind. There was no case which was absolutely hopeless. Even cases in which perforation of the acetabulum had occurred and intrapelvic abscesses existed were not certainly and absolutely hopeless. In making up his estimate with reference to the result in any given case, he had been influenced in his judgment by one striking instance which he had seen—a young girl, in whom the operation of excision seemed to be entirely indicated, and to whom it was recommended, but refused, finally recovered, after languishing for a long time with numerous abscesses connected with disease of the hip joint. During the progress of the case, abscesses formed in the pelvis and discharged fecal contents, showing that there was communication with the intestine. The patient finally was able to walk upon the ankylosed limb, and many years afterward he saw her, and she had become a fleshy, healthy girl, with an appearance of the tissues about the hip joint which was somewhat remarkable. In her thin, emaciated condition, the soft parts, during the healing process, had become united to the bone opposite each fistula, and the interspace between, being gradually filled up with fat, left about the hip six or eight depressions, nearly as deep as the length of his finger, at points corresponding to those at which the old sinuses opened.

Dr. SANDS asked the President if he did not consider such a result as sufficiently rare not to justify the surgeon in accepting it as a criterion.

The PRESIDENT remarked that the result was extremely rare; nevertheless, the possibility of such an occurrence he believed should be accepted, and should have its due weight in the mind of the surgeon when considering any individual case.

STRANGULATED HERNIA.—Dr. GERSTER presented a specimen, and related the history of the case as follows. A working man, thirty-five years old, had had a reducible oblique inguinal hernia since his eleventh year, and had worn a truss for seventeen years. In the evening of January 30th, a sudden abdominal pain compelled him to leave work, whereupon he, of his own accord, took a large dose of salts and went to bed. Vomiting and more pain supervening, the family attendant was sent for, who made an unsuccessful attempt at taxis. Fæcal vomiting, intense local pain, with tenderness all over the belly, induced Dr. Gerster to have the patient transferred to the German Hospital, where kelotomy was performed, January 31st. Eighteen hours after the beginning of the incarceration, ether being the anæsthetic used, the very large, tense, and somewhat reddened tumor was incised in its full length down to the sac. This being opened, some reddish serum escaped, and a large omental mass presented itself, which was found to be firmly attached to the lowest portion of the sac. Both pedicles having been secured by catgut ligatures, this was removed, exposing about ten inches of small, much distended, dark-red intestine. The strangulation now was relieved by the usual steps. The strangulated portions of the gut were carefully drawn forth and examined. The knuckle of intestine showed no unequivocal signs of necrosis, was uniformly reddish-brown, not mottled or gray, its feel and turgor were normal both at the convexity and at the places of strangulation, the serosa shining, so that it was deemed proper

to replace it in the abdominal cavity. The sac, which was closed at its neck by a purse-string-like, strong catgut suture, including the external ring, was cut away below this suture, and entirely extirpated. The operation was finished by the application of a row of external sutures and an antiseptic dressing.

Immediately after the operation marked relief was felt, nourishment was retained, wind passed, and vomiting ceased. Five hours later the thermometer showed 103° Fahr., but the pulse was good, and the patient felt well. Next day some meteorism, slight nausea, and a temperature of 103.5° Fahr. were noted, wherefore one grain of opium hourly and an ice-bag on the belly were ordered. On the third day after the operation nausea and meteorism had still more increased, and the patient's skin and sclerotic had attained a marked icteric hue. The temperature ranged between 102° and 103°, the pulse between 110 and 120 beats. The patient complained of pain in the hypogastrium, which, however, did not increase on pressure. The wound was found well united and without a trace of reaction, so that some of the absorbed catgut sutures could be wiped away. The night was passed badly, in spite of large quantities of opium. On February 4th it was reported that the patient, having vomited last night, had a violent coughing spell, when he felt as though something had given way, but, not feeling any increase of pain, did not call the nurse. Next morning a knuckle of injected gut was found protruding from the open external wound; it had become firmly adherent to the walls of the wound by exuded lymph, and, in view of the meteorism, vomiting, high fever, and generally bad condition of the patient, it was decided not to disturb the protruding gut, but rather to make an attempt at utilizing the state of affairs. The finger was carefully introduced into the inguinal canal, and it was ascertained that no strangulation was present, whereupon a long incision was made into the gut, and, some gas having escaped, a soft catheter was pushed well up into the upper part of the intestine, this portion having manifested itself by the escape of fæcal matter. Thus it was hoped that more gas might escape. The patient died the same day at 3 p. m., with all the signs of a most acute septicæmia. It was noted that as the rate of the pulse rose the temperature declined, till shortly before death the temperature was 99° Fahr.; pulse filiform, and not to be counted.

Post-mortem examination revealed the absence of septic peritonitis. A small quantity of orange-colored, clear serum escaped from the cavity. The prolapsed gut lying in the wound belonged to the lower part of the ileum, and showed signs of adhesive peritonitis. In the left iliac fossa a mass of agglutinated, slate-colored intestine was found, representing the hernial contents replaced at the operation. The places of strangulation were still clearly visible by a band-like depression at one end, and by a loss of continuity of the serosa at the other end of the knuckle. Here the tissues were not necrosed, whereas at the convexity of the knuckle, where at the operation normal turgor and feel were present, an extensive portion of the gut was necrosed and shriveled, but not detached. The intestine having been opened, a band-like coat of diphtheritic, grayish-white membrane was found closely adherent to the mucous surface corresponding exactly with the sites of strangulation. The mucous space inclosed by these two lines was covered throughout by a multitude of round and confluent diphtheritic patches, some of which, being denuded of their gray coating, presented themselves as shallow ulcers. These ulcers appeared to be the same both over the necrosed and the non-necrosed portions. The mesentery was found turgid and reddened, but not necrosed. The cause of death was acute septicæmia from enteric diphtheria and necrosis, caused by a strangulation of eighteen hours' duration, and probably favored by the action of the laxative.

Here we had, then, a case of very acute strangulation, where, at the operation for its relief, the gut was found to be without signs of imminent necrosis, fairly turgid, and where, some five or six hours after the operation, that portion of the intestine necrosed which had not been subjected to the direct pressure of the strangulating ring. Clearly, changes in the arterial blood supply from the mesentery must have been the cause of this issue, and not direct pressure, as was most frequently the case. This was the second case of a similar nature occurring in the experience of Dr. Gerster, and he pointed out the insufficiency of our knowledge in determining at the time of kelotomy whether the given intestine would or would not undergo necrosis after replacement. He called attention to the fact that the external appearance of the hernial contents in many cases presented no reliable signs for determining the future of such an intestine, and that the surgeon still had to trust to good luck. A narrowing down of the limits of this class of cases was very desirable.

Dr. BRIDDON said that some years ago he saw, in consultation with her physician, a German woman who had been suffering for nearly a week from symptoms of moderate strangulation. The right groin was occupied by a painful swelling. The skin was adherent to the subjacent structures, was red and inflamed, and fluctuation was distinct. On dividing the tissues, a collection of pus was found external to the sac, which contained a knuckle of intestine covered with granulations and only very slightly adherent to the ring. The stricture was divided, and the intestine was gently placed just within the ring. Everything went well until the seventh day, when, without the approval of her physician and at the suggestion of an officious friend, she took an active cathartic. It operated through the natural channel and through the operation wound which had been left open. The cavity of the peritonæum was not invaded. The fecal fistula gradually contracted and closed, and she got well.

He could recall another case of similar character which he had seen in consultation with Dr. Gillette. In that case there was suppuration of the sac, the gut was adherent to the neck of the sac, and it was sphacelated. The adhesions were not disturbed, the gut was opened, and the wound was left to close by granulation. Fæces were discharged freely through the wound, but the amount diminished gradually, the fistulous channel contracted, and eventually healed. Several years ago he presented at the Pathological Society a specimen of strangulated intestine which was removed from a woman in whom the condition of prostration did not appear to be warranted by the condition of the imprisoned gut, which was by no means much altered. The operation was followed by diarrhoea and death. He remembered that the late Dr. Krackowizer was present at the meeting, and expressed the opinion that death did occasionally occur after kelotomy from catarrhal inflammation of the intestine due to the use of cathartics administered before the strangulation was relieved, and which only commenced to manifest their action after the obstruction was removed.

Dr. SANDS said there was one question which had not been broached in connection with the specimen presented by Dr. Gerster. He thought it was the rule with most surgeons in doubtful cases to be careful to leave the suspicious portion of intestine at or near the abdominal ring, so that in the event of necrosis an artificial anus would be likely to be established. He supposed that in the present state of our knowledge this was a proper rule. He could recall instances similar to those related by Dr. Briddon where he had returned the intestine in this way, which subsequently became necrosed and led to the formation of an artificial anus which finally closed spontaneously. In Dr. Gerster's case it would seem that death was not determined by peritonitis caused by the reduction of the intestine,

but probably by septicæmia resulting from gangrene, which would have occurred equally if the intestine had not been reduced. This circumstance raised the question whether it might not be thought advisable to excise that doubtful portion of the intestine and unite the edges of the remaining portion with sutures. This operation had been proposed and performed in cases where gangrene was manifest, and although theoretically such a procedure was correct, yet experience had shown that the adjacent intestine was apt to be so much softened as not to be able to bear the strain of the sutures. Perhaps, however, in cases like the one narrated by Dr. Gerster, in which the morbid process had not far advanced, success might be possible.

Dr. WEIR remarked that in cases in which gangrene was recognized the surgeon at once knew what to do. He was either to establish an artificial anus or excise the intestine, preferably the former. In the doubtful cases it might be very difficult to decide which course to take, whether to cut off the strangulated portion of gut altogether, since the present specimen showed, with others he had seen, that there was risk of subsequent gangrene, or to partially replace it, as already mentioned, and await the result. In one instance he had encircled the intestine with a loop of catgut—the ends of which projected from the wound—to keep the intestine in the neighborhood of the ring. The case, however, did well, and no use was made of this loop, which dissolved in the discharges.

The PRESIDENT remarked that he had been guided chiefly by the condition of capillary circulation in answering the question whether or not the vitality of the gut would be retained. If, after pressure with the fingers, the return of the circulation was feeble and imperfect, he had always felt that the intestine was doomed to die.

Dr. GERSTER thought we were unable in every case to apply satisfactorily the test mentioned by the President, as in many cases the gut was so engorged and thickened that pressure could only be made so far away as to be of no special value for determining the exact condition of the circulation in the portion which had been strangulated.

The PRESIDENT replied that he had always been able to decide the question satisfactorily for himself after freely dividing the stricture; and he thought that, by the exercise of a little patience, the condition of the capillary circulation could be ascertained.

Dr. WEIR exhibited an instrument devised by Mr. Treves, of London, for suturing divided ends of intestine after the removal of a gangrenous or diseased portion. The details of the instrument are to be found in the "British Medical Journal" for December 12, 1882.

THE OVARIAN CORPUSCLE.—Dr. BRIDDON presented a specimen of fluid removed by aspiration, for diagnostic purposes, from a tumor in which there was doubt as to the true nature of the disease. The whole abdomen was filled by an elastic but non-fluctuating tumor. The history gave no clew as to what point it started from. It was immovable, and its connections, if any, with the uterus could not be made out. The fluid was of the color and consistence of golden syrup, was alkaline in reaction, and its specific gravity was 1.014. Heat transformed it into a coagulum, which was dissolved by boiling with two volumes of acetic acid, determining the presence of paralbumin, regarded by some as significant of ovarian disease. Under the microscope he found some few epithelial formations, and a number of large round granular corpuscles, also considered as pathognomonic of ovarian cystic growths. In conjunction with this, Dr. Briddon presented a specimen of fluid which he had removed the day before from the tunica vaginalis of an old gentleman. This he also treated by the chemical test applied to the first specimen, and demonstrated the presence of paral-

bumin. Continuing the examination, he found under the microscope the same large, round granular corpuscles, monster leucocytes.

A STATED meeting was held March 27, 1883, T. M. MARKOE, M. D., President, in the chair.

PIROGOFF'S OPERATION.—Dr. GERSTER presented a patient upon whom he had performed Pirogoff's operation. The man had suffered seven or eight years from osteitic disease involving nearly all of the tarsal bones. He had been subjected to a great variety of treatment, and finally Dr. Gerster proposed this operation, which he performed in the ordinary manner five weeks ago. The os calcis was not wired to the tibia, but union between the bones took place by first intention. The man was able to stump around the ward on the seventeenth day after the operation. There was one inch and a quarter shortening.

Dr. H. B. SANDS then read a paper on THE QUESTION OF TREPHINING IN INJURIES OF THE HEAD. [Dr. Sands's paper will be found in this journal for April 21st, p. 423.]

Dr. Post referred to the case of Dr. Van Sinderen, who, when a boy, was kicked on the head by a horse. A portion of the cranial bone nearly as large as the hand was removed from one side, and pulsation could be felt, as in one of the cases presented by Dr. Halsted. He grew up to manhood, studied and practiced medicine, and finally died of cerebral disease following the loss of a member of his family.

Dr. Post also referred to two cases of compound fracture of the cranium which he had recently seen in hospital practice. The first was that of an Italian twelve years of age, who was injured by a fragment of stone thrown from the roof of a house, producing a depressed compound fracture. The loose fragments were removed, the depressed portion was elevated, and the boy recovered perfectly.

At nearly the same time a child fell from the third or fourth story window and received a complicated injury. There was extensive compound fracture of the skull, with depression, fracture of the thigh, etc. Dr. Post elevated the depressed portion of bone, but the shock was so great from the complicated injury that the patient died the next day.

In another instance a child fell from a moderate height, and, after being a little dazed for a time, recovered its senses so as to be able to walk and to talk, but in the course of half an hour it became completely comatose. It was supposed that intracranial hæmorrhage had occurred, and he trephined the patient, but did not find any blood at the seat of the injury. To his surprise, however, the coma passed away and the child recovered. At nearly the same time he had a case of almost precisely the same character, in which the patient recovered. He had supposed that the occurrence of coma half an hour or an hour after the receipt of the injury was pretty certain evidence of hæmorrhage, but in both these cases recovery took place after trephining, and yet no hæmorrhage was found.

Dr. L. A. STIMSON, in reply to Dr. Sands's request for the expression of the society with reference to the rarer methods of treatment, narrated two cases, one of compound fracture without trephining, and one of simple fracture with trephining. The first case he saw in Bellevue Hospital. A young man came on foot one morning, having received a blow upon the back of the head, a little to one side of the median line, inflicted by a chisel. The wound was a linear one, the bone was penetrated, and one edge of the cut portion of the skull turned outward. There were no head symptoms. The man remained in the hospital for a week or ten days without symptoms. Suddenly, without any warning, severe cerebral symptoms developed and the case terminated fatally within a few hours. At the autopsy there was found an incised wound in the soft parts and in the bone, with

very slight splintering of the inner table. The dura mater was not injured. There was an abscess of about the size of a hickory nut in the substance of the brain, separated from the dura mater by a layer of healthy brain tissue. There was a small amount of pus and serum between the dura and the bone at the point of fracture. Death was apparently the result of the inflammatory processes in the wound, and of its insufficient drainage.

The second case was one of simple fracture treated by trephining. A young man fell from a truck, and was removed to the Presbyterian Hospital in a comatose condition. Dr. Stimson saw him twenty-four hours after the receipt of the injury. The patient was still comatose. There was no wound of the scalp, and only a slight puffiness on the left side of the head, which the house surgeon said was not present when the patient was admitted to the hospital. There was slight weakening of the left forearm. There were no other symptoms. On the third day after the injury he received word that the patient had had several violent general convulsions, and, on visiting the hospital, he found him comatose, with high fever and considerable agitation, and with very decided paralysis of the extensors of the left forearm. Dr. Stimson made an incision upon the right side of the head along the motor area, and found a long linear fracture running from behind forward, parallel to and about three inches from the median line, with slight separation, but no depression of bone. He applied a small trephine at the site of the fracture, removed a button of bone, and found a thin layer of clotted blood between it and the dura. He enlarged the opening in the bone posteriorly, and the dura bulged into it, but was without pulsation. He then applied the trephine a second time, about one inch anteriorly to the spot where the first opening was made, removed a button of bone, and found a clot as before, and the dura also bulged. He then introduced the needle of a hypodermic syringe, and withdrew a small amount of fluid blood, after which he nicked the dura and evacuated about a drachm of blood, which may have come, however, from a vein wounded by the needle. The patient had no more convulsions. Toward the end of the operation he seemed to be more sensitive to the handling of the wound than at first. Afterward he developed complete facial paralysis on the right side, and died on the following day. No autopsy was allowed.

While he did not think that the soft parts should be divided in cases of simple fracture, or the bone trephined without positive indications, still he did not think this operation a grave one if the dura were left uninjured. It seemed to him that interference in each case must be decided by a comparison of the possible benefits with the risks of the operation. In illustration of interference based on such comparison he mentioned a case as follows: A woman had been insane for nearly two months after falling out of a second story window and receiving a scalp wound behind the motor region on the right side of the head. He trephined and explored for cerebral abscess. The dura was not opened. No evidence of abscess was obtained. The patient recovered from the operation, and also from her insanity, within a fortnight. As in this case the grave mental disability seemed to justify the operation, even in the absence of probable symptoms of abscess, so in another grave case cerebral symptoms might make it proper to change a simple fracture into a compound one in order to remove a depressed fragment or a clot.

Dr. J. L. LITTLE referred to a case which came under his observation a few years ago at St. Vincent's Hospital. The patient fell from a height and received a slight scalp wound, which exposed the left side of the frontal bone about one inch above the angle of the eye. Exploration showed simply bare bone without any evidence of fracture. The patient's symptoms

were those of insanity, and she became so violent that at the end of six weeks it was arranged to have her removed to a lunatic asylum. Before leaving the hospital Dr. Little trephined and removed two buttons of bone, and also the bridge of bone which connected the two openings, but found nothing wrong. The inner table of the skull was perfectly normal. In less than twenty-four hours there was marked improvement in the symptoms, and within two weeks after the operation the patient left the hospital perfectly sane.

Dr. Little further referred to a case which he saw a few years ago in consultation with Dr. Van Wyck. The patient was a child about seven years of age, who had received a compound fracture of the right parietal bone. There being no symptoms of injury of the brain, no operation was performed. About four weeks after, when Dr. Little saw it first, the child was suffering from symptoms of compression, paralysis, dilatation of the pupil, coma, and convulsions, and had had several severe rigors. The wound was granulating. Dr. Little enlarged the wound and removed several loose pieces of bone. There was no marked depression of the fragments. The symptoms of compression evidently not depending upon depressed bone, Dr. Little ventured to puncture the dura, but, finding nothing, he then punctured the brain substance with a delicate bistoury, and found an abscess some distance below the surface. About a drachm and a quarter of pus made its escape. The symptoms of compression rapidly disappeared. A fungus cerebri took place which was treated by the application of dry absorbing powders and moderate compression. The child made a good recovery.

Dr. Post referred to an autopsy in the case of a little girl at which was found a depressed fracture of the skull, moderate in amount, that had not been attended with marked symptoms in the beginning. But, after the lapse of several weeks, symptoms of encephalitis had come on, and had led to a fatal result. An abscess was found in the lower part of the frontal lobe on the side corresponding with the injury, and in the immediate vicinity of the depressed bone.

Dr. Sands remarked that he did not wish to be understood as being opposed to trephining in every case of simple depressed fracture. He merely wished to say that, as such fractures were usually the result of a force applied over a considerable area, the lesions were liable to be extensive and of such a character as to render trephining a useless operation; consequently, he would hesitate before converting a simple into a compound fracture. But, if he believed that the fracture was limited in extent, and that mischief might be directly caused by a fragment of bone pressing upon the dura, he would not hesitate to trephine. He thought, however, that such cases were extremely rare.

The PRESIDENT said that his own experience accorded nearly with that of Dr. Sands. He had thought that it was, as a rule, disastrous to add to an already existing fracture the complication of an external opening. In one or two instances where he had felt that the depression was abrupt and very marked, and that the symptoms were due to the depression, he had made an incision and proceeded to elevate the bone, but the cases of abrupt depressed fracture without breaking of the skin were very rare. In only one or two instances had he ventured to trephine, and he was not able to give the results. He believed that the true principle was that which Dr. Sands had announced.

Dr. STIMSON referred to a case which illustrated the application of the principle advocated by Dr. Sands and Dr. Markoe. It was one of simple depressed fracture produced by a blow with a hammer. He had already reported the case to the society. The patient was trephined, and made a good recovery. There were no brain symptoms.

The PRESIDENT remarked that in such a case the indications for trephining seemed to be very clear. Besides, if there were symptoms which seemed to depend especially upon the local injury, trephining should be performed.

Dr. SANDS remarked that, in simple fracture accompanied with deep depression, recovery sometimes took place without trephining. He had seen an example of this kind many years ago in the Massachusetts General Hospital.

Dr. J. L. LITTLE presented A FOREIGN BODY REMOVED FROM THE ŒSOPHAGUS. It was accompanied by the following history: The patient was admitted into St. Vincent's Hospital on February 28th. On the night before she accidentally broke a plate containing two false incisor teeth. She placed the broken plate in her mouth before going to bed. On awaking in the morning the pieces became loose, and one of them slipped down into the œsophagus. On entering the hospital, the patient complained of the following symptoms: Pains between the shoulders, and just below the clavicle on the right side; was unable to swallow liquids, the attempt giving rise to severe pain; had had slight hæmorrhage from the throat. Upon examination, she complained of great pain upon pressure over the œsophagus, just above the clavicle, but no indication of a foreign body could be felt. A digital examination, and the introduction of Cusco's laryngeal forceps, failed to detect any obstruction. Dr. Little then introduced a probang with a rounded steel hook at its extremity. This was passed down about six or seven inches below the tongue, and came in contact with the foreign body. He succeeded in hooking it, and in making strong traction; but, failing to dislodge it, he unhooked it, and, after several unsuccessful attempts, finally succeeded in dislodging it. The patient then stated that the body had slipped down farther into the œsophagus. He instantly introduced the hook, and was so fortunate as to catch the body again and to draw it up until it was in sight. The hook then slipped off, and the plate slipped down again. He then quickly introduced an œsophageal forceps, and succeeded in seizing and removing it. The plate removed contained one tooth, was of a triangular shape, measuring one inch and seven eighths in one direction, and one inch and one fourth in another. A slight amount of hæmorrhage followed the removal. The patient was able to swallow with some pain immediately after, but left the hospital the next day.

Dr. W. T. BULL referred to two cases in which he had removed similar foreign bodies from the œsophagus with the ordinary "coin catcher." The first was that of a patient who, nine days before admission to the hospital, swallowed an upper plate containing two front teeth, and took nothing afterward except fluid nourishment, and that with much difficulty. He said he had lost twenty-five pounds in weight. The foreign body had lodged in the œsophagus just above the entrance to the stomach, and could be pulled up to about the level of the cricoid cartilage without difficulty, and then it would disengage from the instrument and fall back. Dr. Bull then resorted to the following manoeuvre. He introduced two coin catchers, one beyond the plate, the other just below the cricoid cartilage—to "lie in wait." With the first the body was drawn up until it was arrested, when the second caught it at once and it was removed.

In the second case the rubber plate—a small one—was easily caught with the coin catcher, just within the entrance to the œsophagus, and removed at the first effort.

SECONDARY HÆMORRHAGE AFTER LIGATION OF THE FEMORAL ARTERY.—Dr. Post continued the history of the case which he reported four weeks previously, one in which secondary hæmorrhage occurred after removal of a sarcoma of the thigh, and in which he ligated the femoral artery. Subsequently hæmorrhage occurred, which he thought was evidently from the distal side. Believing it to be unwise to open the wound and to ligate

the vessel, he applied a compress, with a bandage from the toes upward, and suspended the limb, and this method was effectual in restraining further hæmorrhage. The hæmorrhage had not recurred, and the patient was doing well.

Reports on the Progress of Medicine.

QUARTERLY REPORT ON ANATOMY AND PHYSIOLOGY.

No. IX.

By WILLIAM C. AYRES, M. D.

MENSTRUATION AND ŒSTRUATION.—In one of his lectures on the comparative physiology of menstruation, Wiltshire, of London (*"Brit. Med. Jour.,"* March 3, 1883), after going over a good deal of ground which is more or less familiar to us, adds: In all creatures there are periods of "heat" or sexual excitement when both males and females are apt for procreation. These periods are marked by a systemic excitement, and by local phenomena of a more or less conspicuous character. Among the mammalia, the times of heat display a seasonal periodicity; that is to say, they recur annually, biennially, quarterly, or at more frequent intervals, according as the conditions of existence or environments are favorable or the reverse, and, apparently, in some degree according to the size of the creature, being, for example, rare in the elephant. Yet in every creature seasonal periodicity, at longer or shorter intervals, is observed, and, as Darwin and Laycock have shown, this periodicity always partakes of a hebdomadal character. It is always some greater or lesser multiple of a weekly period.

In the lower animals, in a wild or feral state, the aptitude for procreation is seasonal, recurring mostly at times when food and warmth are plentiful. Under normal circumstances, the earliest longing for sexual congress is promptly gratified in the female, conception ensues, gestation proceeds on its appointed course, and, until the genesial cycle has been completed by parturition, the "rut" or "heat," with its attendant desire for copulation, does not ordinarily recur. But, impregnation failing from any cause (e. g., absence of the male at the appropriate season of sexual appetite), we may inquire, Do the symptoms of heat persist indefinitely? and, if not, What period elapses before they are again exhibited? Observation of wild animals, both in a state of nature and during captivity (when the latter does not interfere with reproduction), and, still better, of domesticated animals, shows that, after a definite period of quiescence, Œstruation, or the "rut," invariably recurs at epochs which strictly conform to some multiple of the week. In highly bred and well-cared-for domesticated animals, Œstruation would probably be renewed periodically until arrested by conception; for it is well known that domestication enormously enhances the capacity for reproduction, and renders that sustained which under other conditions of environment subsides until it is renewed by the seasonal awakening. It is probable that, in the wild state, in the absence of the male the "heat" stimulus to sexual desire would, after a few periodical manifestations, die away, grow cold, and subside, remaining in abeyance until the return of the season with which it is primitively allied. The long rhythmical periodicity may be termed "seasonal," since it appears to be primarily allied with, or dependent upon, seasonal changes, as has been abundantly demonstrated by Darwin, Herbert Spencer, Laycock, and others. This seasonal periodicity of "heat" accounts for a corresponding periodicity in

delivery; for, as is well known, many wild animals bring forth their young at mild and favorable seasons, as spring, and not at inclement or unfructuous times. This is generally so in our domesticated animals when art does not interfere with the natural instincts; and, in truth, this primitive seasonal condition of the exercise of the generative function underlies the process of reproduction, even in the highest creatures. A trace of this seasonal influence is certainly still conspicuous in the greater tendency manifested by the human female to conceive at certain annual epochs; and it seems probable that this seasonal influence underlies the genesial function in all creatures, and is a relic and trace of a primitive or primordial condition governing reproduction. We shall see that not only does woman most frequently begin her menstrual life in the summer months, but she brings forth her offspring more frequently in the spring than in other seasons, just as the lower animals do. Many years ago the author concluded that every woman had a law peculiar to herself, which governed the times of her bringing forth (and conceiving); that, in truth, she was more prone to bring forth at certain epochs than at others; and subsequent researches have not only abundantly confirmed his surmise, but established the accuracy of the forecast. The evidence is given in other lectures.

The influence of civilization and domestication in expanding the reproductive powers is conspicuous. And yet the generative system, as Mr. Darwin has ably and conclusively shown, is highly sensitive to changes in the environment of the individual. Seemingly, the higher mental endowment of advanced human beings carries with it not only an augmented capacity for the reproduction of their own species, but also bestows a like advantage upon the creatures showing amenability to man's sway by flourishing under his dominion. Not alone does the human race increase, but man's flocks and herds multiply prodigiously. Would that the same care were observed in the breeding and propagation of the human species, the author adds, as in that of animals of merely commercial value!

The influence of domestication upon the fertility of animals amenable thereto is most instructive. The total productiveness of most of them is enormously increased thereby. The continuous and regular supply of food, the artificial warmth, selection, care, and culture bestowed on them greatly enhance their productiveness. Puberty not only arrives earlier, but a sustained power of reproduction is acquired; more offspring can be bred, and these again breed earlier. The manifestations of "heat," therefore, instead of being confined to seasonal appearances, are much more frequently renewed, resembling, be it noted, those in women; and where indulgence is denied the female, as it is for commercial purposes in the case of cows, for example, by segregation from the male, the periods of heat may be observed to recur with marked regularity—in cows usually every three weeks. Domestication, then, increases the fertility of domesticated creatures, while seclusion from the male, either for economic purposes or through captivity, permits the repeated exhibition in the female of the phenomena of rut or heat, whatever they may be.

Prolonged civilization has done for women what domestication has done for the lower animals; it has augmented their power of reproduction, made them more prolific, and rendered more frequent the manifestations of that aptitude; hence the sustained repetition of Œstro-menstruation. Darwin (*"Descent of Man,"* p. 45) has remarked that savages appear to be less prolific than civilized peoples. Bischoff has truly said: "If women menstruated only once or twice in a year, it would long since have been remarked that such was the only time when conception was possible; menstruation would long ago have been recognized as perfectly analogous to the 'heat' in animals, even

though the most essential element of it, the maturation of ova, had not been discovered." He also says: "The ova form and become mature, and are extruded from the maternal organism, usually at fixed periods, having regularly recurring intervals." This is the period of "heat" in animals and "menstruation" in human females. The analogies existing between menstruation in women and oestrus in the lower animals may be shown. In both there is special aptitude for conception at or near these times, though women are more highly endowed, inasmuch as they may conceive at epochs somewhat remote from this "period." The lower females will rarely permit intercourse except at the period of heat, which in ruminants, at any rate, are of brief duration; indeed, the males seldom attempt it during the intervals. This is unlike the practice of human beings. In both it has been shown that germ-cells are then ready for impregnation; though here again woman enjoys the advantage implied above, in that ova may be produced at times other than those of the "heat," that, however, being admittedly the usual and ordinary epoch for that ripening and dehiscence. Propinquity to the male, without access to him, is known to hasten ovulation in birds; and in the human female repeated sexual indulgence may stimulate the rupture, if no more, of Graafian follicles. One should not lose sight, however, of the superior evolution of the sexual system in the higher creatures, for this may not be without influence upon the process. It can hardly be maintained that sustained ovulation is the exclusive appanage of the higher animals, but there can be but little doubt that the organic superiority of the highest enables them to co-ordinate more rapidly the advantages their endowments and environments may chance to afford; their sexual superiority is correlated with their mental as with their general organic superiority, etc. He then gives some facts about the comparative anatomy of the uterus and ovaries, etc., which are well worth calling to mind.

GAUTIER'S POISONOUS SALIVARY ALKALOID.—In his article on a certain alkaloid in the human saliva ("Arch. f. path. Anat. u. Physiol. u. f. klin. Med.," xci, 1, 1883), Bujwid makes a communication on the salivary alkaloid described by Gautier ("Gazette hebdomadaire," No. 29, 1881), which does not resemble an albuminoid. According to Gautier, this alkaloid should possess the following properties: It is not soluble [in what?], it is not destructible by boiling, and gives crystals when treated with gold and platinum chlorides. As to its physiological action, it behaves like those alkaloids which are found in the cadaver; when brought into the system, it acts like serpent's venom, this action being most marked when it is given to birds. Gautier makes no further mention of the nature of the alkaloid, of the method of obtaining it, or of the quantity requisite to produce the effects.

Bujwid's communication is in respect to the latter questions, the first of which was to determine the quantity of the substance which, when introduced into the system, would produce death, or, at least, an appreciable effect. He experimented in the following way: He boiled the saliva of a healthy man of twenty-five years, and then collected 100 cc., evaporated it as much as possible, and treated the residue with alcohol. After washing with alcohol and water very often, he evaporated it to about 2 cc., and used this as a subcutaneous injection. In the first experiment he injected as much as is contained in 15–30 cc. of saliva into a pigeon, and also into a frog. They both showed, one hour, and, indeed, several hours after the injection, no change in their condition. In the second experiment he used, in the case of a pigeon, as much as was contained in 50 cc., and afterward, also in a pigeon, as much as was obtained from 100 cc. of saliva. In all three of these experiments there was no apparent effect. In the last pigeon the rectal tempera-

ture was 42.4° C. before the experiment; one hour after it was 41°, and the next day 41.3°.

His experiments show, therefore, that in the fresh saliva, in as large a volume as 100 cc., there is not enough of the supposed alkaloid of Gautier to produce either death or an appreciable effect, even on a small animal.

AUTOMATISM DURING HYPNOTISM.—In their article on certain cases of cerebral automatism observed in hysteria during the cataleptic period of hypnotism ("Jour. of Nerv. and Mental Disease," Jan., 1883), Charcot and Richter make some interesting observations. First it is shown that the patient is really hypnotized. This they do by means of a tambour (see the original) attached to an extended limb, the object being to register the smallest oscillations of the member, while, at the same time, a pneumograph applied to the chest gives the curve of the respiratory movements.

In the case of a cataleptic, the lever which corresponds to the extended member traces a straight and perfectly regular line during the entire duration of the observation. In the case of the simulator the tracings resemble those of the cataleptic for a short time, but at the end of a few minutes the line is not regular, but broken into a series of larger oscillations. In this way we can tell whether the person is feigning or not.

The respiratory curve in the simulator also shows the rapid changes which occur in consequence of muscular fatigue from holding out the arm, whereas that of the cataleptic shows that his breathings are infrequent and superficial.

Their *facts of cerebral automatism* they gather from certain experiments, among which was localized faradization of the muscles of the face, according to the process of Duchenne. In their first experiment they saw the attitude of the body, and the appropriate gesture, succeed to the expression imparted to the physiognomy by the electric current. [The current does not interfere with the cataleptic state.] When by reason of uncertainty in the operative procedures the physiognomy did not give clear indications, the attitude or gesture also remained undecided. When the current was removed, neither the face nor the body changed in the least, and the cataleptic was left in the condition of a living statue, which often displayed striking expressions capable of being used by artists to great advantage. The cataleptic will retain such an expression until the arms, for instance, are placed vertically, when the face will assume an indifferently expression.

The main interest attached to these experiments is not that the phenomena are singular and unexpected. It lies, on the contrary, in this, that they are intimately connected with the normal action of the nervous system, and their principal merit is to throw into relief, by reason of their isolation, facts whose trace is not difficult to find in the normal state. Thus, these experiments in hypnotism become a most beautiful demonstration of the automatic action of a part of the encephalon, an action already described by psychologists and physiologists, and to which has been given the name of cerebral automatism, or unconscious cerebration.

THE CORPUS STRIATUM.—In the same journal Dr. A. L. Ranney gives a condensed review of our knowledge of this important portion of the brain, and, besides, prints a diagram which is well worth the time necessary for understanding its meaning, since it shows in a conspicuous manner the relation which the corpus striatum has to the rest of the brain.

His figure 3 is the diagram which represents the afferent and efferent fibers of the corpus striatum. It shows very clearly the connection between the caudate nucleus and the lenticular nucleus, with the psycho-motor region of the cortex; also the connection of the peduncular fibers with the lenticular nucleus,

the fibers of the so-called "internal capsule," and, further, the olfactory fibers connecting with the caudate nucleus. The diagram is ingenious.

Letters to the Editor.

A STATEMENT BY DR. AUSTIN FLINT, JR.

NEW YORK, April 28, 1888.

To the Editor of the New York Medical Journal:

DEAR SIR: My professional reputation, such as it is, is sufficiently dear to me to make me desire to defend it, in a proper way and through proper channels, when it is publicly attacked, although I can scarcely imagine a provocation sufficient to induce me to enter into a personal controversy in the newspapers. I beg that you will do me the justice to publish the statement that I have to make, as well as the report from the "New York Herald," which has induced me to send you this communication.

At the last meeting of the New York Academy of Medicine I introduced resolutions instructing the Committee on Admissions to report to the Academy, for election as resident Fellows, no physician who could not consistently sign the by-laws of the Academy; and another resolution reaffirming the by-laws of the Academy as far as they referred to medical ethics. The simple facts with regard to this action in the Academy are as follows:

From the fact that its by-laws include the Code of Ethics of the American Medical Association, the Academy of Medicine is the only society in the State of New York which is entitled to representation in the American Medical Association, or in the regular medical societies of any of the other States. This is because the New York State Medical Society, which carries with it in this matter all the county societies, has adopted a code of ethics opposed to the code of the American Medical Association; which latter code is adopted by the medical societies of all the other States in the Union.

The fact that the president and first vice-president of the Academy, as well as other officers, actively and publicly advocate the State code, which is opposed to the by-laws of the Academy, excites alarm on the part of many Fellows of the Academy, and a fear that the standing of the Academy may, by the attitude of its prominent officers, be gravely compromised.

Animated by this feeling, a number of Fellows of the Academy, who are in favor of its by-laws as they now exist, and who include four of the five living ex-presidents, prepared a set of resolutions reaffirming the ethical portion of the by-laws, and I was selected to present these resolutions to the Academy at a regular stated meeting. We also notified those who were known to be in favor of the existing code of ethics of the Academy that resolutions would be introduced at the last stated meeting relative to the election of resident Fellows. Those acting in this matter conceived that it was not only their right, but their duty, in the existing condition of the Academy, to introduce these resolutions, and to ask those who were known to agree with them to be present.

The resolutions, which you have already published, were accordingly introduced by myself, and were carried by a vote of two to one. By recognized parliamentary procedure, which involved no abridgment of discussion, they were made as binding upon the Academy as possible.

During the entire discussion of the resolutions, I made no personal allusion, used no unparliamentary language, and conducted the part of the proceedings that had been assigned to me, as I hope, with courtesy and moderation. I used the single argument, if argument it can be called, that, in my opinion, a majority of the Fellows of the Academy desired to maintain its standard of medical ethics, so long as the code is not modified by the American Medical Association, as the only way of preserving the relations of fellowship of the Academy with the American Medical Association and the regular medical societies of other States.

This action on my part has subjected me to violent personal attacks in the newspapers, which attacks include the statement that I have "pulled down my venerable father from a pinnacle that was beautiful and lovely and dragged him in the mud."

I now ask you to reprint the inclosed, which is taken from the "New York Herald" of April 21st, in order that the profession may form an opinion as to the justifiability of the personalities therein contained. I trust that my professional brethren will credit me with the intention of acting in this matter according to my sense of right and duty, and with an honest endeavor to fight this battle temperately and impersonally, as well as with courage and firmness.

Yours very truly,

A. FLINT, JR.

** The following, taken from the "New York Herald" for April 21st, is what Dr. Flint asks us to append to his letter:

"DOCTORS AT LOGGERHEADS.—LIBERALS AND ANTI-HOMŒOPATHS DISCUSSING THE CODE OF ETHICS.—TROUBLE IN THE ALLOPATHIC CAMP.—A SECRET MEETING OF THE LIBERALS AT DR. JACOBI'S RESIDENCE.

"DRs. Austin Flint, Jr., S. S. Purple, and J. W. Gouley are the recognized leaders of the anti-homœopaths in this city, while Dr. C. P. Agnew and Dr. D. B. St. J. Roosa lead the liberal hosts. At the meeting of the Academy of Medicine Thursday evening the Flint party stole a march on the liberals by having adopted a set of resolutions the aim of which was to perpetuate the present Code of Ethics of the American Medical Association.

"DR. FORDYCE BARKER ASTONISHED.

"'Never in my life was I so astonished and mortified as I was last night,' said Dr. Fordyce Barker last evening, after he had sat a quiet listener to the proceedings of the secret meeting for nearly three hours. 'Although I got notice during the afternoon that it was the intention of Dr. Austin Flint, Jr., to pack the meeting and throttle the Academy, I would not believe that it was possible for him to do it. But, for fear he would do it, I secured the presence of Dr. Weir, the first vice-president, so that I could resign and call him to the chair in case Dr. Flint undertook to carry out his plan, and he did carry out his scheme. It was a disgraceful, abominable trick, and only fit to be undertaken by a low ward politician. In doing this he pulled down his venerable father from a pinnacle that was beautiful and lovely and dragged him in the mud. I was greatly moved by what took place, but managed to preside, as I believe, with impartiality, till the meeting was over. When I got home I thanked God, for the first time in my life, that I have no voice. For if I had been a Demosthenes I would have left the presiding officer's post and answered the conspirators from the floor. As it is, I can only feel mortification and shame for the men—none of them very heavy-weights—who perpetrated this cowardly trick. For the rest of my life I can only treat Dr. Flint with required civility. He may think that he has won a great victory, but he will find out his mistake. And now I wish to announce that, although I offered my resignation as president of the Academy of Medicine last evening, I here withdraw it. I have five clear months between this and the next October meeting of the Academy, and by that time I think I will have been able to thwart the designs of the conspirators.'"

BELLEVUE HOSPITAL MEDICAL COLLEGE AND THE CODE QUESTION.

NEW YORK, April 25, 1888.

To the Editor of the New York Medical Journal:

SIR: The subjoined correspondence between the Faculty of the Bellevue Hospital Medical College and myself followed upon a proposition by the Faculty that I should recede from the position which I took at the recent meeting of the State Medical Society in opposition to the re-enactment of the code of ethics of the American Medical Association in this State.

[DR. HOWE TO DR. FLINT.]

"DR. AUSTIN FLINT, JR.,
 "Secretary of the Faculty,
 "Bellevue Hospital Col.

"DEAR SIR: Having been informed by Professor Joseph D. Bryant that, unless I could join with the rest of the Faculty in supporting the code of the American Medical Association, my resignation would be acceptable, I hereby tender my resignation as Professor of Clinical Surgery in Bellevue Hospital Medical College.

"Resp. yrs.,

"JOSEPH W. HOWE, M. D.,
 "38 W. 24th St."

[DR. FLINT TO DR. HOWE.]

"BELLEVUE HOSPITAL MEDICAL COLLEGE,
 "NEW YORK, April 28, 1883.

"PROF. JOS. W. HOWE.

"MY DEAR SIR: I am directed by the Executive Committee of the Bellevue Hospital Medical College to inform you that, at a meeting held last evening, your resignation as Clinical Professor of Surgery was accepted. I am also directed to express to you, in behalf of the Faculty, their warm appreciation of the valuable services you have rendered the college as a clinical teacher, and their regret that circumstances should exist which induce you to sever your connection with them. While they can not agree with you in opinion upon certain matters, your attitude certainly commands respect; and it is the hope of the Faculty that the kind feelings which have existed between you and them during the time of your connection with the institution may not be disturbed.

"Yours very truly,

"A. FLINT, JR.,
 "Sec."

Yours truly,

JOSEPH W. HOWE.

Miscellany.

THE "NATION" ON THE CODE QUESTION.—In an article entitled "The Medical War," published in its issue of April 26th, the "Nation" says:

"The trouble between the 'regular' and the 'irregular' doctors over the Code of Ethics—in other words, over the propriety of allowing consultations with homœopaths—led to an exciting meeting of the New York Academy of Medicine on Thursday. The new code adopted by the State Medical Society allows such consultations; but there appears to be a question whether the action of that society is binding on the New York Academy, or whether this institution is not still governed by the old-fashioned ethics. Accordingly, resolutions were introduced on Thursday by Dr. Flint, and, after a stormy discussion, adopted, declaring that no physician known to be opposed to the old system should be eligible in future as a resident Fellow. The vote was fifty-eight to twenty-five, and among the minority were a number of physicians of the highest professional standing. The fact is, that, as all the proceedings of the various medical bodies during the past year show, the profession is divided in opinion as to the code; and this division of opinion is what strikes the layman in reading the accounts of the various meetings, rather than the success of one party or the other. Such a division means, of course, that instead of one code of ethics we shall probably now have two in use, in this State, at least; but it does not seem that they will differ in any point but one. The regulars insist on maintaining 'the dignity of the profession' by forbidding consultations with homœopaths, while the irregulars insist on considering the interests of the sick simply in all consultations.

"It is not difficult to foresee how the affair will end. The new code must eventually triumph, because all the influences of the times are on its side. Nothing that the irregulars ask for involves in the smallest degree any concession of the claims of homœopathy to be

considered a scientific method of treatment. Their amendment does not provide for the joint treatment of any case by an allopath and homœopath. It simply permits the allopath to give his opinion to any one who asks for it, and is willing to pay for it, without inquiring into his motives or character. It allows a regular physician to tell any sick person or his medical attendant what he thinks of the case, and to receive a fee for so doing. It binds him to no approval of the treatment previously pursued, for he may disapprove of it wholly. Those who ask for the opinion, in fact, indicate by their asking that they are doubtful about this treatment themselves, and think it not unlikely that he will disapprove of it. Their asking for it when the treatment has been homœopathic is, in fact, a concession to allopathy; and the most singular thing to us in the present discussion is that the regulars should not see it in this light, and encourage their members to go into consultation with homœopaths whenever the latter seek it. There is probably no other calling in which it would be considered improper for an orthodox practitioner to tell what he thought about his condition to a heretic or infidel who asked what he should do to be saved.

"Physicians, as well as all other scientific men in our time, must come to regard themselves, not as bands of tradesmen, interested in keeping up the prices of their goods and discouraging competition, but as reservoirs of the best knowledge of the day, from which everybody is at liberty to draw. If homœopaths were absolute and recognized impostors, it would not constitute an excuse for refusing to tell a patient who had fallen into their hands what he should do to get well. On the contrary, the worse a regular thinks of homœopaths the more eager he ought to be to get access to the unfortunates who are under their treatment. If his advice is taken, and the patient gets well under it, the result is a victory for orthodox medicine and a defeat for what he considers quackery. If it is not taken, the patient is no worse off than he was, and the regular physician is better off by the amount of his fee. The quarrel, in fact, reminds one of the Irish priest who complained much of the low moral condition of his flock, whose evil ways he was unable to restrain even by occasional horsewhipping. Being asked whether he had ever tried the Gospel on them, he answered, indignantly, that 'he was not going to waste good Gospel on the likes of 'em.' In fact, the notion that there are classes of people so low and wicked that they are not even entitled to religious teaching, is hardly more ridiculous than the notion that there may be sick persons so deluded and gone astray that it would not be right for an orthodox doctor to tell them, even for a fee, what is the matter with them, and what will cure them—that homœopathy so degrades and dehumanizes them that a good allopath ought not to advise them to give it up."

TO THE MEDICAL PROFESSION OF THE STATE OF NEW YORK.—We are asked to publish the following:

We, the undersigned, ex-presidents of the New York Academy of Medicine, desire to record our approval of the action taken by the Academy at the stated meeting of April 19, 1883, reaffirming the ethical clause of its by-laws and our indorsement of the course pursued, by request of the council of the central organization of the New York State Medical Association, as presented at this meeting by Austin Flint, Jr.

WILLARD PARKER, M. D., President N. Y. Acad. Med. 1856.

JAMES ANDERSON, M. D., President N. Y. Acad. Med. 1861 to 1867.

AUSTIN FLINT, M. D., President N. Y. Acad. Med. 1873 to 1875.

SAMUEL S. PURPLE, M. D., President N. Y. Acad. Med. 1875 to 1879.
 NEW YORK, April 30, 1883.

A COMMENTARY ON THE CODE CONTROVERSY.—The New York correspondent of the "Chicago Medical Journal and Examiner" writes as follows:

"I have no doubt that the medical profession is somewhat tired of the subject of medical ethics. But the discussion continues, and recently the 'New York Medical Journal' has opened its columns to a series of articles *pro* and *con*. Perhaps I may be excused, therefore, for saying something of the matter now. The disinterested observer who visits New York would have to question many physicians before he found one who felt any particular interest in the present ethical fight. At the best attended meeting, called to vote upon the subject,

only about one fourth of the members of the county society, and perhaps one tenth of the regular profession of the city, was present. The general feeling is, that the real importance of the question has been exaggerated by outside agencies for an advertising purpose; and that medical practice here, as everywhere, goes on with very little reference to disciplinary codes. This view is strengthened by the fact that no case of discipline for consulting with irregulars has occurred in fifteen years in this city, or, I believe, in the State. It is somewhat curious that, before the new code, instances of sinful consultation by certain eminent physicians were well known to occur, and that some, to whom the practice was most ascribed, are now vigorously championing the old code.

"It is a mistake to think that there is any especial antagonism among the physicians of the city. I do not think that many favor the present code as a whole, but only the non-restrictive clause in it. The majority prefer, I should say, the declaratory resolutions, or Gentleman's code. Many others would like the old code minus the restriction clause, and a little refurbished in other respects.

"It is idle to expect that New York will ever return to the old code in its entirety, however. It would require a two thirds vote to do it, and at the last meeting of the State society, despite most laborious canvassing, there was not even a majority. The meeting was a full one, and each side did its best to bring out all its friends. The battle was fairly fought, with no parliamentary tricks or political manipulation. The vote represented the general feeling in the State. This is shown by the canvass made by Dr. Smith, the secretary of the society. Among nearly seven hundred answers to his query as to which side the individuals took upon the matter of the code, there were about three hundred and forty in favor and not quite three hundred against the present code. About one third of the profession of the State live in New York, and less than one third of the answers came from this city, the 'ayes' and 'nays' being about eighty to one hundred and twenty, as I remember the figures. So that the returns represent the feeling in the country, as well as city.

"The statement is made that of the fifty-nine county societies only six have taken action in favor of the present code, while thirty-six have taken action against it. It should be borne in mind, however, that the six include New York County, Albany County, and Kings County, and that their representation is forty-seven out of the total of one hundred and twenty-three county delegates. Assuming that the seventeen counties which took no action had but one delegate, there would still be considerably over one half of the county representation which took no action against the code. I have assumed that Kings County is favorable to non-restriction, because I understand and believe that the vote rescinding instructions to delegates really represented the feeling of the majority of Brooklyn practitioners.

"Perhaps one reason why the State of New York sustained its last year's action is to be found in the character of the criticisms made upon it. Here are some examples: 'It disturbed "a custom approved and sanctified by wisdom and experience of ages."' 'A disgraceful act.' 'In the interest of specialists.' 'It (the code) does not exclude the licensed cancer quack, midwife, or chiropodist.' 'Fifty doctors, reckless of honor, and greedy for gold, undertook to sell out the profession.' 'A complete surrender to homœopathy.' 'It (the code) asserts the propriety of consulting with homœopaths.' 'Most unwise, ill-timed, and injurious, . . . untenable in every respect, and not sustained by the action of any other respectable body in Europe or America.' 'An unwise and useless code—a code which sacrifices the self-respect and honor of the members of a once honorable profession in order to pander to the interests of a few specialists.' 'Hurried through by a small majority.' 'A significant fact that the new code agitation was entirely inaugurated by specialists, and that every man who has taken at all an active part in securing its adoption and preventing its repeal is a specialist.'

"It has been keenly felt that these charges are, every one of them, untrue and unjust. Their constant iteration has, no doubt, made converts to the other side. For this reason, also, many in the city who did not entirely approve of the new code, felt gratified, after all, that it was sustained. The charge against the specialists is made each time with as much triumph as if the authors had achieved an intellectual

victory, and satisfactorily solved the whole problem of ethics. But I think all candid men will agree that this is a side issue; that the question is really as to the right and advisability of allowing individual freedom in professional conduct, just as is allowed to members of all other professions and pursuits. At any rate, in the State society, it was not a question between specialists and general practitioners, for among the hundred and five votes for the new code I can count only sixteen specialists. In this city the proportion of specialists among the anti-code men is relatively considerable. The Southern and Western gentlemen who say such severe things against the honesty of New York physicians are probably ignorant of the methods in which specialists here do their work. This is chiefly done in the office, and the general practitioner does not bring his patients, but sends them. The patient is examined and prescribed for independently of his own physician.

"I do not write to defend our specialists, however, who can, no doubt, take care of themselves; but only for fair treatment toward them and toward the profession of New York. It seems to me that there is no call for so much violent feeling and vituperative language. The profession is not going to be destroyed or disintegrated, as has been intimated. I do not think that we are victims of moral decay. I find it perfectly safe to mingle freely with my neighbors. The view in this city, I think, is, that, by removing a restriction that had been a dead letter, we have placed ourselves in a better light before the world; have removed an affront and a stimulus to homœopathic progress, and have only set aside a technical morality which infringed on the individual's rights without elevating him in return. We believe that the true work for professional elevation lies in securing a higher educational standard, better-trained minds, a more scientific spirit, and a greater technical skill in our midst. We believe that this work can be better done without the embarrassment and reproach caused by the restrictive code. We believe that skilled and learned physicians, obedient to the laws of God and the dictates of common morality, are what the profession needs."

THE PHILADELPHIA HOSPITAL FOR SKIN DISEASES.—The Board of Managers of the Hospital for Skin Diseases, of Philadelphia, announce that they have recently added to their facilities a complete system of baths for the general and specific treatment of this class of affections. Under this head are comprised the Turkish, Russian, vapor, medicated, and electric baths, for the giving of which the latest and most approved apparatus has been obtained at considerable cost. The subject of balneology, as connected with skin diseases, is receiving much attention from specialists, and the physician in charge of the hospital is giving it the consideration that the importance of the subject demands. Peculiar advantages are thus afforded physicians and advanced students who wish to obtain a knowledge of this branch of therapeutics by visiting the hospital and consulting with the attending physician. Free clinics are given at the hospital daily, at 11.30 A. M., by the physician in charge, Dr. John V. Shoemaker, where a great variety of diseases can be seen. The large variety of cases presented enables those who attend the clinics to gain in one or two courses a practical knowledge not obtainable in private practice. The course is made more comprehensive by didactic lectures which are delivered at the hospital on Mondays and Fridays, at 11 A. M. The hospital has accommodations for twenty-five patients in the wards and private rooms. The prices in the former range from four to seven dollars a week; and in the latter from ten to thirty dollars. The best of food and attendance are furnished, and everything is done to render the patients cheerful and contented during their stay in the institution. Physicians and advanced medical students are always welcome, either as visitors or for the purpose of attending the free clinics. The superintendent, Mr. F. C. Waterman, will be in his office at the hospital every day from 11.30 A. M. to 2 P. M., to receive visitors or to transact business.

THE DECLINE OF HOMŒOPATHY IN ENGLAND.—Dr. W. Wilberforce Smith writes as follows to the "Lancet": "The 'Homœopathic Directory,' published by Leath and Ross in 1862, indicates that the system was in its infancy in this country more than half a century ago, having been represented in 1830 by a single practitioner. In its twenty-fourth year (1853), according to the same authority, it had 90

grown as to be represented by 213 members. In 1862, after nine more years, the same 'Directory' shows 218 qualified practitioners; that is, a small increase of five. A few years later the numbers had increased, according to the 'Homœopathic Directory,' published by Turner, of Fleet Street, in 1866 to 227, in 1867 to 246, in 1868 to 258, in 1869 to 268, and in 1870 to 273, representing a total increase of 55 qualified practitioners in eight years. In the subsequent and most recent decade all substantial increase from the ranks of the profession soon ceases. In 1871 there were 278 practitioners; in 1872, 279; 1873, 284; 1874, 279. Then, according to the 'Directory' of the Homœopathic Publishing Company, Finsbury Circus, in 1875 there were 269 qualified practitioners; 1877, 249; 1878, 268; 1879, 275; 1880, 275. Thus there was an increase in the decade, counting from 1870, of only two practitioners. Considering the increase of population and the increase in the numbers of the profession generally, the schism had evidently been losing ground during this decade, notwithstanding the establishment of a London School of Homœopathy, founded with the express object of promoting the system among members of the profession, and notwithstanding also, as I have reason to know, the promise held out to students of a lucrative specialty. In 1881 the number of practitioners willing to enter themselves in the 'Homœopathic Directory' had actually diminished to 267, and in 1883, as you have informed your readers, the whole number amounted to only 260—a serious fact for a system which is nothing if not belligerent and in creasing.

"For myself, I rejoice that there are signs of greater toleration among the profession, because homœopathy, like every important sect in medical history, has legacies of truth to leave behind it, and numbers in its ranks many men of truth and honesty. Equally do I rejoice that, as a system holding out its flag and sounding its trumpet to attract the attention of the public, its inevitable decay is in sure progress."

SUBSTITUTES FOR MOTHER'S MILK.—In the March number of the 'American Journal of Obstetrics' Dr. S. B. Sherry, of Delafield, Wis., writes: "I have tried the following mixture as a substitute for mother's milk in a number of cases, and it has always proved very successful. . . . I direct the nurse to add a pint of barley-water to an ounce of pearl barley, and allow it to cool, and then strain it. One third of a pint of this barley-water, and two thirds of a pint of fresh, undiluted cow's milk, are mixed, and sweetened with a teaspoonful of milk-sugar. It is very important that common sugar be not used. We have here a mixture very closely resembling human milk in color, taste, and consistence, and I have learned to rely upon it with great confidence."

The "Lancet" quotes the "Physician and Surgeon" to the effect that Professor Frankland's method of preparation of artificial human milk is as follows: "Let one third of a pint of fresh cow's milk stand twelve hours, then remove the cream, and add to it two thirds of a pint of new milk as fresh from the cow as possible. To that one third of a pint of blue (or skim) milk left after taking away the cream, add a piece of rennet (about one square inch in size), which, after it has served its purpose, can be taken out and used daily for a month or two, and allow the vessel holding the skim milk to be placed in warm water, and there remain for from five to fifteen minutes, until curdling is effected. Break up the curd repeatedly, and carefully separate the whole of the whey, which should then be rapidly heated to boiling in a small tin pan, placed over a spirit- or gas-lamp; during this heating a further quantity of casein (technically termed "fleetings") separates, and so straining after this, through fine muslin, is then required. Now dissolve one hundred and ten grains of powdered milk-sugar in hot whey, and mix it with two thirds of a pint of new milk as before prepared with extra cream. This gives one pint of artificial human milk, which should be used within twelve hours of its preparation. All vessels and apparatus concerned in the manufacture must be kept scrupulously clean."

SUBCUTANEOUS INJECTION OF ETHER.—M. Hayem, Professor at the Paris Faculty of Medicine, in a communication recently made to the Academy of Medicine on the utility of hypodermic injections of ether when death from hæmorrhage is imminent, asserts that injections of ether practiced on a dog which had lost so much blood as to have

tetanic convulsions, and to be on the point of death, were followed by no perceptible results. In a similar case, transfusion of blood containing all its constituent parts was followed by, as it were, a veritable resurrection. When a sufficient quantity of blood (one nineteenth of the weight of the body) is removed from the animal, to place it just on the boundary between imminent death and possible survival, the result of subcutaneous injection of ether is equally negative. In the same circumstances, not only is transfusion of blood successful, but even, in some cases, recovery ensues, when the blood still remaining in the organism of the animal is diluted with serum taken from another animal of the same species. M. Hayem is of opinion that these facts indicate that it is a mistake to affirm that transfusion is a useless operation, and that the stimulation produced by hypodermic injections of ether can be substituted for it. Stimulation by ether, he remarks, increases the force of the cardiac contractions, and quickens the heart-beats in a remarkable manner, but it does not increase blood-pressure, nor raise the temperature in the rectum.—*British Medical Journal*.

THE SANITARY INSTITUTE OF GREAT BRITAIN.—The Autumnal Congress of the Sanitary Institute of Great Britain will be held this year in Glasgow, from September 26th to 29th. The exhibition of sanitary apparatus and appliances in connection with the Congress will remain open until October 20th.—*Med. Times and Gaz.*

THE SALICYLATES AND HÆMORRHAGES IN ENTERIC FEVER.—Dr. James Fergusson, of Perth, writes: "At the time when salicylic acid and its compounds are receiving so much attention, may the following facts be regarded as at least worthy of statement? Last year, while resident in the infirmary here, I had an opportunity of testing the efficacy of certain drugs as antipyretics in enteric fever. These agents were used successively, each over a group of cases, and included the salicylate of soda. The latter had not been long in use when an increased frequency of hæmorrhages from the bowel raised the question, Could the salicylate be favoring the production of that complication of the malady? Whether it were or not, the suspicion aroused dictated the withdrawal of the salt from use in cases of typhoid. Shortly afterward, I noticed that a foreign observer had reported the salicylate of bismuth, and, I think, also salicylic acid (though of the latter I can not be certain, as I am not able now to find the report in question), to cause intestinal and nasal hæmorrhages. The subject would not have been revived by me at present but for the recent experience of my successor in the resident's office of the above-mentioned institution, Dr. H. McLean Wilson, who joins me in placing the facts before the public. Dr. Wilson, in having recourse to the soda-salt in typhoid, found the same striking frequency of hæmorrhages to follow closely. His employment of the agent differed from mine, in that he administered small doses of ten to fifteen grains frequently over the twenty-four hours, while I gave half-drachm or drachm doses at longer intervals apart. In the other respect, however, our experiences have been so similar as to warrant the facts being brought under notice, so that the important practical question involved may, if possible, be decided by the evidence of a number of observers."—*British Medical Journal*.

AN INTERNATIONAL CONGRESS OF COLONIAL PHYSICIANS.—An international congress is to be held in Amsterdam in September, at which medical matters are to be considered with special reference to the needs of colonies. The subject of quarantine will be discussed by Dr. F. de Chaumont, Professor of Hygiene at Netley; Dr. Van Leent of Amsterdam; and Professor R. Cervera, of Madrid. The special education of colonial physicians will be treated of by Colonel Becking, of Utrecht, formerly chief of the Dutch East Indian Medical Service. Hygiene in relation to unwholesome occupations in colonies will fall to Dr. Da Sylva Amado, Professor of Hygiene in the Medical School of Lisbon, and Dr. Van Overbeek de Meyer, Professor of Hygiene at the University of Utrecht. The modifications which certain diseases, particularly the infectious diseases, undergo under the influence of tropical climates will be spoken of by Dr. Walther, a medical inspector in the French navy, and by Dr. Norman Chevers, of London, formerly Professor of Medicine in Calcutta. Phthisis in colonies and in tropical climates will be reported on by Dr. B. Carsten, adjunct-inspector in

the medical service of the Hague. Sir Joseph Fayrer, Surgeon-General of India, Dr. Joseph Ewart, Deputy Surgeon-General, and Dr. Le Roy de Méricourt, Physician-in-Chief of the French navy, will remark upon the treatment of exotic and tropical diseases in temperate climates.

THE ILLINOIS MEDICAL LAW.—In a recent report by the secretary of the Illinois State Board of Health, Dr. J. H. Rauch, that officer says: "Among the certificates issued during the past month a considerable number were to practitioners exempt from the Medical-Practice Act, by reason of length of practice in the State, but who have recently graduated from reputable medical colleges; and also to others holding certificates based upon examinations, and who have pursued the same course. It is gratifying to be able to record this result of the recommendation of the board, whose policy it has uniformly been to urge non-graduate candidates for its certificates to complete the regular curriculum of study, and obtain the diploma of a college in good standing. As nearly as can be ascertained, there are now only about 650 non-graduates left in the State, as compared with about 3,800 at the time when the law went into effect."

THE FACULTY OF THE POST-GRADUATE MEDICAL SCHOOL.—Dr. Edward L. Partridge has been appointed professor of obstetrics, and Dr. Charles S. Ward professor of diseases of women in conjunction with the present incumbent, Dr. Dawson.

THE ILLINOIS STATE MEDICAL SOCIETY.—The annual meeting of the society will be held at Peoria, beginning May 15th.

THE ARKANSAS STATE MEDICAL SOCIETY.—We are indebted to the secretary, Dr. L. P. Gibson, for information in regard to the eighth annual meeting of the State Medical Society of Arkansas, to be held at Little Rock on Wednesday and Thursday, the 30th and 31st instant. The following committees are to report: On Medical Education—T. W. Hurley, Chairman; W. B. Welch, W. A. C. Sayle, W. H. Hawkins, W. H. Hardison, D. C. Ewing, D. H. Dungan. On Practice of Medicine—J. A. Dibrell, Sr., Chairman; D. H. Dungan, T. D. Nichols, Z. Orto, G. W. Hudson, A. N. Carrigan, G. M. D. Cantrell, P. H. West, J. F. Simmons. On Surgery—J. A. Dibrell, Jr., Chairman; J. R. Dale, C. L. Kirksey, William B. Lawrence, J. E. Bennett, J. M. Keller, W. B. Welch. On Gynecology—Edward Cross, Chairman; R. N. Ross, W. H. Heard, J. F. Blackburn, D. S. Williams. On Medical Legislation—R. G. Jennings, Chairman; G. B. Malone, A. A. Horner, C. Watkins, P. Van Patten, W. W. Hipolite, A. B. Loving. On Necrology—A. N. Carrigan, Chairman; R. B. Gladden, J. T. Jelks, J. F. Blackburn, G. S. Brown, E. H. Alexander, R. C. Wallis. Board of Visitors to the Medical Department of the Arkansas Industrial University—Isaac Folsom, Chairman; J. E. Bennett, W. W. Hipolite, W. H. Hawkins, Z. Orto. Committee on State Medicine—Z. Orto, Chairman.

THE WEST VIRGINIA STATE MEDICAL SOCIETY.—The Medical Society of the State of West Virginia will hold its sixteenth annual session in the Court House at Grafton, commencing at two o'clock, p. m., Wednesday, May 16th.

A NEW SOCIETY IN MEXICO.—Under the title of the "*Sociedad Médico-mutualista Zacatecana*," a society has been formed at Zacatecas, for the purpose, as stated in a circular recently sent us, of promoting instruction, morality, and reciprocal aid among its members. Dr. Luis G. Gonzalez is the president, and Dr. Eufemio J. Gutierrez the chief secretary.

SMALL-POX IN FLORIDA.—We have information to the effect that small-pox is very prevalent in Jacksonville, chiefly among the negroes, and that many points on the St. John's River are quarantined in consequence of the prevalence of the disease.

SMALL-POX IN MERCER COUNTY, WEST VIRGINIA.—Under date of April 30th, Dr. James E. Reeves, Secretary of the Virginia State Board of Health, writes from Wheeling as follows: "A telegram was received at this office yesterday announcing the discovery of twenty cases of small-pox in Mercer County, West Virginia. The State Board of Health has been appealed to for help. The greatest excitement prevails among the people of that county. Complete instructions have been sent by telegraph how to compass the situation."

THE INFECTIOUS DISEASES OF DOMESTIC ANIMALS.—We learn that the Legislature of the State of New York has appropriated \$5,000 to be used, under the direction of the State Board of Health, we presume, in the prevention of pestilential diseases among our domestic animals.

THE UNITED STATES MEDICAL COLLEGE.—The following resolution was adopted at a recent meeting of the Illinois State Board of Health: *Resolved*, That, under the recent decision of the Supreme Court of the State of New York declaring the charter of the United States Medical College of New York null and void, this board can no longer legally recognize the diplomas of that institution.

A PORTRAIT OF MR. ERNEST HART.—At a recent assemblage of more than five hundred persons, mostly physicians, held at Grosvenor House, London, Mrs. Hart was presented with a portrait of her husband, the distinguished editor of the "British Medical Journal," "in recognition," as the invitations stated, "of his many and valued services rendered to the profession at large, and especially to the Army and Navy Medical Services, and the influence which, during twenty-five years, he has exercised on sanitary and social progress, the advancement of the welfare of the sick poor, and the cause of public health."

DEATH OF DR. H. B. WILBUR, OF SYRACUSE.—Dr. H. B. Wilbur, Superintendent and Physician of the New York State Asylum for Idiots at Syracuse, and a member of the State Board of Charities, died suddenly on the morning of the 1st instant. Dr. Wilbur was graduated, in 1843, from Berkshire Medical College.

DEATH OF DR. JAMES PALFREY, OF LONDON.—The "British Medical Journal" announces the death of Dr. Palfrey, for many years an obstetric physician to the London Hospital.

DEATH OF M. KRISHABER.—We learn from the "Union médicale" that Dr. Krishaber, the eminent laryngologist of Paris, died of typhoid fever on the 10th of April, about a month after the death of his wife.

ARMY INTELLIGENCE.—*Official List of Changes of Stations and Duties of Officers of the Medical Department, United States Army, from April 21, 1883, to April 28, 1883.*—CLEARY, PETER J. A., Major and Surgeon. So much of Par. 10, S. O. 273, November 23, 1882, from this office, as directs him (then captain and assistant surgeon) to report in person to the commanding general Department of Dakota, is revoked, and, upon the expiration of his present sick leave of absence, to report in person for assignment to duty in the Department of the Missouri. S. O. 95, A. G. O., April 25, 1883. — HOPKINS, WILLIAM E., First Lieutenant and Assistant Surgeon. Now on leave of absence in New York city, to be relieved from duty in the Department of the East, and assigned to duty in the Department of Arizona. Par. 7, S. O. 95, A. G. O., April 25, 1883.

NAVAL INTELLIGENCE.—*List of Changes in the Medical Corps of the Navy for the week ending April 28, 1883.*—Surgeon J. B. Parke, ordered to the Torpedo Station, Newport, R. I., vice Surgeon William J. Simon, detached and waiting orders. — Passed Assistant Surgeon M. H. Simon, detached from the Naval Hospital, Chelsea, Mass., and ordered to the Naval Hospital, Yokohama, Japan, vice Passed Assistant Surgeon C. Biddle, detached and ordered to the Richmond. — Passed Assistant Surgeon A. A. Austin, from the Richmond and ordered home. — Assistant Surgeon J. H. Bryan, ordered to report May 1st for examination for promotion.

SOCIETY MEETINGS FOR THE COMING WEEK.—*Monday, May 7th:* Medico Chirurgical Society of German Physicians; Morrisania Medical Society (private). *Tuesday, May 8th:* East River Medical Association (private); Jersey City Pathological Society; Newark Medical Association (private); New York Academy of Medicine, Section in Surgery; New York Surgical Society. *Wednesday, May 9th:* Medical Society of the State of Pennsylvania (Norristown); New York Pathological Society. *Thursday, May 10th:* Brooklyn Pathological Society; Medical Association of the Eastern District of Brooklyn; Public Health Association of New York. *Friday, May 11th:* Yorkville Medical Association (private). *Saturday, May 12th:* New York Medical and Surgical Society (private).

Lectures and Addresses.

LECTURES ON
HUMAN AUTOMATISM.

DELIVERED AT THE LOWELL INSTITUTE, BOSTON,

By WILLIAM B. CARPENTER, M. D., LL. D., F. R. S., ETC.

(Concluded from page 481.)

The next point to which I have now to advert is the remarkable influence of the *direction of the attention* in the selection of those sensory impressions which we have any purpose or desire to exalt. You know very well the difference between *listening*, for example, and merely hearing sounds; between *looking at* an object fixedly and the mere seeing it. The one is an active state of the mind, involving the purposive direction of the attention, while the other is its passive recipiency of whatever comes within the scope of the senses. And it is in this direction of the attention that, I think, we have the *rationale* of a great number of phenomena which, at first sight, seem very difficult of explanation. We every now and then meet with cases in which there is an extraordinary receptivity for some particular kind of sensory impressions, others being as entirely disregarded as if the organs of sense were closed to them.

It is commonly supposed that the exaltation of one sense, which occurs (as in the case of Laura Bridgman) when other senses are wanting, is due to an improvement in its organ. But I shall be able, I think, to show you that it is chiefly, if not solely, attributable to the complete restriction of the attention upon the one kind of sense-perception which remains open. This you well know, in Laura Bridgman's case, to be the touch, as to which she has not only an extraordinary acuteness of discrimination, but an extraordinary recollection of differences so slight as not to be even perceptible to ordinary people. Thus, she can not only at once recognize, by a slight touch of the hand, all the persons with whom she is intimate, but, when she has once held the hand of a new visitor for a short time, she can recognize that visitor again after an interval of several months, just as any one of us would do by our sight. It was a visit which a brother of mine paid her, some thirty-five years ago, that put me in possession of that fact. He brought an introduction to her; and, his relationship to the writer of that introduction having been explained to her, she took one of his hands into her own, so as to take in from it the impression of his personality which the seeing person derives from looking at the face. He called on her two or three times, I believe, during his first visit to Boston, and had conversations with her through her interpreter, and afterward traveled for about twelve months in different parts of the United States. On coming back to Boston, before leaving for England, he paid her another visit, and she immediately recognized him, after that interval, when she took his hand into hers.

Now, I am far from denying that the habitual and exclusive use of one sense-organ, and of the parts of the cen-

tral apparatus with which it is connected, may so improve their structural adaptiveness as to make them more efficient instruments, on the one hand, for conveying sense-impressions to the consciousness, and, on the other, for enabling the mind to profit by them. But what I have witnessed, over and over again, in cases of natural and induced somnambulism, has satisfied me that a scarcely inferior acuteness of sense-perception may be shown by persons who, having full possession of their senses during their ordinary lives, have undergone no such training; and that the main condition of it lies in the exclusive concentration of the attention upon some one particular kind of impressions, such exaltation not being confined to the touch, but being equally shown in the guidance of movements by the muscular sense, and in the discrimination of objects by the smell. Of this I shall give you two remarkable instances, the first of which I did not myself witness, but which was carefully observed by my late brother, Dr. P. P. Carpenter, while the second occurred within my own knowledge. The subject of the first case was a young gentleman, the son of an eminent solicitor of Manchester, occupying a high social position; and he was then recovering from a long and severe attack of rheumatism, affecting almost every one of his joints. For a reason I shall presently mention, he was placed under the care of Mr. Braid, of Manchester, whose "hypnotic" experiments, performed thirty years ago, are now coming to be generally recognized as important. I may say that I did my best at that time to bring them into public recognition; and they are now being taken up by scientific inquirers in Germany and France, and, I believe, in this country also, who will very likely add considerably to our knowledge of the curious state to which Mr. Braid's inquiries first drew attention. The young gentleman of whom I have spoken was crippled by the rheumatic stiffness of his joints; and any attempt to bring them into use by passive exercise was attended with so much pain that it was suggested that Mr. Braid should bring him, if possible, into a state of hypnotic insensibility, during which his limbs might be put in movement in various ways. After two or three exercises of this kind, he began to talk in his sleep; and it was soon found that, like many natural somnambulists, he could carry on a conversation. Though I believe that his eyes were open, it was quite clear that he did not see anything; for his head might be completely inclosed in an opaque covering, or a book might be held between his eyes and the writing which he could be prompted to execute, and he would take no notice whatever, but go on just as he did before. Now, if he was directed to write from dictation, he would take a slate or a piece of paper and pencil, and write down, with great regularity, anything that was read to him, shaping his letters very well, and keeping equal distances between the lines. But it was specially remarkable that he would afterward go back and dot his *i*'s and cross his *l*'s just as correctly as if he could see them, provided that the paper remained in the same position. But, if the position of the paper had been changed without his knowledge, he would put these dots and lines where they should have been if the paper had remained where it was.

If, however, he was made aware that the paper had been moved, he would take a new departure from its upper left-hand corner, and then would go on and dot his *i*'s and cross his *t*'s in the right places. In one instance, when he had been writing a German exercise, he thus put the diæresis over a German vowel, to the great astonishment of his German master, who was present. Now, in all this he must have been guided by the muscular sense alone; and it must be obvious to you that only by an extraordinary exaltation of this sense could he have done what I have been describing. But the circumstances of the case seem to me to leave no doubt that this temporary exaltation must have been entirely due to the intensity with which the youth's attention was concentrated upon what he was about, to the complete exclusion of every distracting impression. It was further found that his sense of smell was remarkably exalted in the hypnotic condition; and, a number of his father's friends having been brought together to see some of Mr. Braid's experiments, he was able, among seventy persons, to pick out unhesitatingly the owner of a glove which had been put into his hands, walking about among them snuffing like a dog. (The other glove had, of course, been put away, so that he had no guidance in his selection.)

I myself witnessed a case of the same exaltation in a young factory-girl, who was one of the subjects on whom Mr. Braid was at that time experimenting. Before entering his room, I took off a ring which I wore and gave it to Mr. Braid, to place in the hands of any of his subjects whom he might regard as most likely to discover it. There were not many persons in the room, perhaps eight or ten, but she at once assigned the ring to me. I had never seen her before I entered the room, and can not think of anything else than the temporary exaltation of her sense of smell that could have led her unhesitatingly to assign the ring to me rather than to any one else.

You see that in these cases there could have been no such habitually specialized use of the particular sense as would be required to produce such a structural change in its physiological apparatus as we may imagine to have occurred in a case like Laura Bridgman's. And I regard these and similar phenomena as affording proof of what the concentration of our attention may do in exalting the sensory impression made upon our consciousness, the same *neurosis* producing *psychoses* of very different intensities, according to our mental state on each occasion.

I may mention, as further illustration of the necessity of the *exclusive* concentration required for such highly specialized forms of sense-perception, that I have been assured by the Master of a deaf and dumb school, in which "lip-reading" is taught, that he considers it useless to endeavor to train to this interpretation of the movements of speech any one who is only partially deaf, as the distraction of the attention by the effort to *hear* what is spoken prevents that concentration of it on the face of the speaker which is requisite for the *visual* recognition of the words he utters. You must all be familiar with cases of the same kind, though differing in degree, which show how much our mental receptivity of any particular sensation or class of sensations depends upon the attention which we give to it;

and my next point is the power we possess of *determinately selecting*, between two or more concurrent sensory impressions, what we shall allow to enter our minds, so as to become the basis of higher mental operations, and what we shall more or less completely exclude. I am particularly desirous of impressing this point upon you, because in the two remaining lectures I shall have frequent occasion to advert to it.

I have again to refer you, by way of illustration, to a familiar experience—the way in which we can distract our attention from one class of sensory impressions by determinately attending to another, the intensification of the latter being accompanied by a corresponding abatement in the former. And this is equally true of the impressions made on our sensorium by external objects, and of those which arise from our purely subjective thoughts and feelings. Not only can we select between two kinds of impressions received (it may be) through different senses, or between two different trains of thought, but we can select between a train of thought and a series of sensory impressions. And the precise analogy between these three cases appears to me to afford a strong argument in favor of the view I have several times brought before you of the unity of the sensorium—the central organ which receives on its outer side impressions from the nerves of the external senses, and translates these into consciousness, receiving, also, from its inner side the impressions of cerebral change brought to it by the "nerves of the internal senses," and translating these, also, into states of consciousness. The selection between two different sets of sensory impressions, so that one is received while another is shut out, is what every microscopist does who has trained himself, when looking through the microscope with one eye, to keep the other eye open—a great saving of fatigue. Some persons never acquire this power, but I never myself have had any difficulty in it. I become perfectly insensible to impressions made on my left eye when I am using my right in looking through the lens of a single microscope, or the single body of a compound microscope. Some persons find it necessary to put a screen of some kind before the left eye, in order to allow it to be kept open (which, when microscopic observation is continued for some hours, is an absolute necessity for the avoidance of disagreeable and distracting muscular strain) without receiving visual impressions from objects within its range, which would interfere with the microscopic image formed by the right eye. But I scarcely ever find the need of this; and I believe that most observers who have worked much with a single eye would say the same. If a very bright object lies in the field of the left eye, its image may force itself on one's recognition; but objects which do not thus attract notice come by habit to be so completely unregarded that we may truly say that they are *not seen* by the mental eye, though their pictures are formed on that of the body, and the impressions of them are transmitted to the sensorium, just as in the case of the somnambulist.

There are cases, again, which I doubt not are very familiar to you, in which we can withdraw ourselves, as it were, from even severe physical pain by determinately fix-

ing our attention upon something else—either external objects or internal trains of thought. A very admirable example of that kind was presented not long since by a well-known physician of this city, Dr. Edward H. Clarke, with whose case I have become acquainted through my friend Dr. Oliver Wendell Holmes, who wrote a charming little notice of him affixed to the work on “Visions,” which has been published since his death. The fatal malady from which he suffered during the latter months of his life produced the most agonizing pain; and yet he could determinately withdraw his consciousness (so to speak) from that pain by fixing it upon another object, that object being the working out of his own neutral train of thought in the composition of this book.* This is well known to have been the case, also, with regard to Sir Walter Scott, who, during a very severe and painful illness, dictated the “Bride of Lammermoor.” And the most remarkable fact about its composition was that, after his recovery, he entirely forgot all that he had done, the book, on its publication, coming to him as an entirely new work, with which he had had nothing whatever to do. He only remembered the general outline of the story upon which he had composed his novel; this he had heard in early life, and it remained with him; but of the working-up of this story into the novel, while he lay on his sofa contending with paroxysms of agony, he had no recollection. Thus, in the case of Walter Scott, as in that of Dr. E. H. Clarke, we see the effect of determined fixation of the attention upon a train of ideas in mastering physical pain. And I shall give you another most remarkable example of the same thing in the case of Robert Hall, one of the most celebrated preachers of my early years, of whom I suppose most of you have heard. He used to go into the pulpit suffering the most agonizing pain, which was found, after his death, to have resulted from a large calculus in his kidney, with projecting points, the terrible suffering produced by which every medical man will at once appreciate; and was obliged habitually to take some of the largest doses of opium that were ever administered in order to keep this under at all. But from the moment he began his extempore sermon (the introductory service having been performed by his colleague) he seemed utterly unconscious of it. During the later portion of his life, which was passed in Bristol, I was often his hearer, and, like every one else, was most deeply interested in his discourses, while at times quite carried away by the torrent of his eloquence. I was assured by eye-witnesses that when he went down into the vestry he would sometimes roll on the floor in agony, though during his pulpit address he had ceased altogether to feel pain.

Now, some physicians, not physiologists, tell us that he must have felt the pain, but did not remember it. But he can not be said to have *felt* it while he was utterly unconscious of it, his mind being exclusively engaged in develop-

ing and uttering his train of religious thought. He could keep the part of the sensorium in connection with his cerebrum in a state of activity so exalted that it would withdraw the activity from the other part in connection with the nerves of sense—a state which I do not think any physiologist need now have any great difficulty in accounting for, in the light which the “vaso-motor” physiology of the present day throws upon differences in the amount of blood supplied to the two parts. For the larger supply of oxygenated blood and the greater activity of physical change in what may be designated as the upper or cerebral aspect of the sensorium would simply diminish the supply of blood, and reduce the physical activity of the lower portion—that in direct connection with the nerves of external sensation.

I have lastly to speak of the intellectual act of perception; and with this I shall associate, as our time is limited, something that goes rather higher than perception—what we call “common sense.” Our perceptions are the mental judgments which we pass upon the materials furnished by our sensations. These judgments may relate simply to the nature of the external object which calls forth our sensational consciousness. Thus, I have a number of sensations connected with an orange. I recognize its form and color, and the character of its surface, as made known to me by my sight; and then I have other remembered sensations of its aspect when cut open, of its fragrant smell, and its pleasant taste, all of which are embodied in my conception of an orange. And the recognition of the object, as distinct from my own consciousness of the sensorial change excited by its presence, is what we mean by *perception*.

Now, as the first element in all perception is the recognition of the externality of the object, of the presence of something that is outside ourselves, we are brought into contact with a question which (as you must all know) has been debated by philosophers from the beginning of philosophical thought, namely, the reason why we thus project our consciousness, as it were, into the outside world, and the basis of our conviction that there *is* an outside world. All of you who have read Berkeley, and studied him as he ought to be studied, will be aware that Berkeley traced everything back to our own subjectivity—that is, to each individual's recognition of changes in his own states of consciousness. And, in regard to this point, I believe that every scientific psychologist of the present time is a follower of Berkeley. But when we further inquire, as metaphysicians do, *why* we infer the existence of objects external to ourselves from changes within ourselves, we find logical proof altogether wanting, every philosopher being able to pick a hole in every other philosopher's train of reasoning. My own conviction is that we believe in an external world simply because we can not help it, the conviction being forced upon us by the automatic work of the Ego in the combination of a vast number of different experiences, every one of which *suggests* the conclusion, while the concurrence of all forces this conclusion upon the mind as an unmistakable conviction. And this seems to me to be the basis of the distinction between that purely subjective state which we call dreaming and the state of ordinary consciousness

* Having had the opportunity of carefully perusing Dr. Clarke's treatise, subsequently to this mention of it, I have pleasure in recommending it to all who are interested in this inquiry, as, in my judgment, a sound and well-digested exposition of its subject, which must have been well thought out by its able author while his intellect was yet in its full vigor.

in which we recognize the reality of an external world. It is the belief of some psychologists that there is so little fundamental difference between these two states that, in an early stage of intellectual development, man is liable to confuse his dreams with his waking states. I am myself perfectly willing to admit the possibility of this, because I think we have all an occasional tendency to confuse our dreams with our waking states, when our dreams consist of successions of ideas that *might* have had a foundation in reality. Although, as a general fact, our dreams are exceedingly incoherent, and rapidly fade from the memory, yet we are sometimes vividly conscious during sleep of ideas which have an unusual *vraisemblance* and consistency; and when these reproduce themselves in our waking state—a few days afterward, it may be—we say, “Did I hear such and such a thing, or did I dream it?” It is only when our dreams are thus consistent with our every-day experience that we have any difficulty in distinguishing them from our waking consciousness. Their unreality is generally made apparent to us on waking by their marked inconsistency with assured facts; as, for example, when we have been talking (as we thought) with persons whom we know to have been long dead. As Tennyson has said, “Dreams are true while they last;” it is when we awake to the realities of the world that their unreality is made obvious to us—our disposition to believe in our own states of consciousness being here negated by being brought to the test of our surest convictions. Our disposition to believe in the reality of an external world, on the other hand, is receiving constant confirmation from so great a number and variety of experiences that we regard the denial of it as an affront to our “common sense.”

Now, an analysis of this and other deliverances of that “common sense” upon which a great part of our every-day conduct is based, has led me to regard it as the *integration* of a vast number of separate experiences, effected by the automatic action of that elementary intellectual apparatus (if I may so express myself) which is common to every individual. And I shall endeavor to make my meaning clear to you by an illustration derived from a very remarkable machine which my friend Sir William Thomson, of Glasgow, has devised for the calculation of tides. Every one knows that the rise and fall of the tides depends essentially upon the attraction of the sun and the moon; and that these differ, both relatively and absolutely, according to the period of the lunation. Thus, at new and full moon, the two attractions concur, and we have spring tides, while at the quarters they are opposed, and we have neap tides. So, the orbit of the moon being elliptical, when she is nearest the earth (or in perigee) her attraction is stronger than it is when she is at her greatest distance from the earth (or in apogee). Again, as the earth's orbit also is elliptical, the sun's attraction is greater at the earth's least distance from it (perihelion) than it is at her greatest distance (aphelion). There are several other inequalities in solar and lunar attraction and motion, which have a constant regular operation that is capable of being calculated for any particular place. And, besides all these, there are other factors arising out of the local conditions of the place. Altogether, I think

there are as many as eleven different variables, every one of which has to be taken into account, in combination with all the rest, if you would calculate the rise and fall of the tide and the time of high water for any particular place. Now, Sir William Thomson has constructed a most ingenious machine, which works out this resultant automatically, when adjusted in the first instance for the special peculiarities of the locality; so that when these adjustments have been made, and the machine is put in action by turning a handle, the required time-table is evolved by it, as the general resultant of the whole series of independent factors.

Now, this is what I think that the automatic action of our cerebrum is constantly doing for us—integrating, as it were, all our diversified experiences in one resultant, which impresses us with the conviction of its certainty, in virtue of its complete consistency, not only with the whole aggregate of our remembered experiences, but with every new experience as it arises, so as to leave no loop-hole for doubt or hesitation. For example, I might put the question to myself, “How do I know that I am not in a dream at this very moment?” I have often dreamed of lecturing; and if I have been about to begin a new course of lectures, about which I have been a little nervous, I have not unfrequently dreamed that I had overslept myself, and have been too late for my lecture, and that some very unpleasant consequences had followed. But while the objective reality of these conceptions has been disproved by their inconsistency with my waking consciousness, every impression made upon my consciousness in connection with this course of lectures fits into every other impression; there is a perfect congruity and harmony in the whole series of those impressions; and, therefore, I feel perfectly satisfied that I am not under any delusion in the matter.

I have no hesitation, then, in basing my conviction of the reality of an external world upon the general accordant of my sense-experiences, each of these affections of my consciousness suggesting to me an external or objective cause for it, and my visual sense in particular projecting the object into outer space, just as my tactile sense makes me locate an impression received through it in my finger-ends, and attribute it to some object in contact with them. And this conviction is not weakened by the knowledge that any individual experience may be interpreted wrongly, visual images, for instance, occasionally presenting themselves without any object answering to them, and tactile impressions being felt after the loss of the limb to which they are referred. For in each of these cases the objective *unreality* is at once proved, and the correction supplied, by that very comparison of experiences in whose results, when accordant, we seem fully justified in placing implicit confidence. For, when we try to grasp the spectral figures which our diseased brain has conjured up, we find them to consist of shadow without substance; and, when a man who has suffered amputation looks for the hand whose fingers he seems to himself to be moving, he becomes sadly conscious of his loss.

Every metaphysical system which bases the argument for the reality of an external world upon the necessity of so interpreting any single sense-impression, seems to me open to the very obvious physiological objection that this sense-

impression may be purely subjective. But, on the other hand, I hold that we are under the absolute necessity, in virtue of the original constitution of our minds, of so interpreting that integrated resultant of all our sense-experiences, which is worked out for us automatically by our cerebral, or, as some may prefer to call it, our mental mechanism.

I must postpone until the next lecture the evidence of this integrating action that may be drawn from that co-ordination of our visual and tactile sensations, on which we depend for our recognition of solid form, confining myself, at present, to the remark that here again each sense corrects and checks the other. A well-painted "scene," viewed from a distance, may give an entirely false conception of the relative positions of the objects it represents, while no handling of any object by a person born blind will give him a true conception of the form of that object as *seen* by him when he first acquires visual power. And I shall bring the present lecture to a close by giving you a curious instance in which a perceptive judgment, based on visual experience alone, is proved to be altogether false by bringing it to the test of *comparative* experience.

I place before you these two pieces of card, one above the other; and I think that if I were to ask any one who sees them to say, "off-hand," which of them is the larger, he (or she) would unhesitatingly reply, "The lower one." If you do not take time for consideration, but judge by your first impression, I believe that you would all agree in this verdict. But I now take up the lower card and place it above that which was previously the higher; and you then see that it looks just as much *smaller* than the other as it previously looked *larger*. I now lay the one upon the other, and you see that they are of exactly the same size. The illusion is so complete as almost to suggest jugglery; but you may readily test it for yourself by drawing the figures with a pair of compasses and a ruler, and then cutting it out in duplicate.

It is easy to see, on a little consideration, that our erroneous *prima facie* interpretation has been suggested by the *convergence* of the two lateral borders; so that those of the upper card, when mentally prolonged downward, fall much within those of the lower. If these lateral borders be made *vertical*, the equality of the two cards becomes at once apparent, as it does when you direct your attention to the fact that the higher and lower corners of the upper card, respectively, lie vertically above the higher and lower corners of the under one.

Now, this simple case of perceptive illusion appears to me an extremely valuable one, as showing how easily we may be misled in the *interpretation* of our sensations by suggestive promptings that operate through our automatic mechanism. Such suggestions as I shall show you in the next lecture exercise a very curious disturbing influence on our appreciations of the size and distance of objects not near enough to be apprehended by the touch; and when we pass into that higher region, in which our ideas are associated with states of feeling that give them an emotional character, we shall find that, in order to prevent ourselves from being led astray by them, it is continually necessary to keep our automatism in order by a comparison of experi-

ences, and to direct our course of thought and feeling by that selective attention-upon which I have dwelt so much this evening.

Original Communications.

THE PATHOLOGY AND RADICAL CURE OF HAY FEVER, OR HAY ASTHMA.*

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ALL writers on hay fever, with a marked unanimity, agree that it is a most singular disease, that its cause is uncertain, that its pathology is unknown, and its treatment most unsatisfactory.

This absence of definite knowledge concerning it has arisen, not from lack of patient, careful, and close observation to determine its causes, but from the fact that these causes have been studied independently, that their relations to the tissue in the nasal passages, which is the part especially affected in this disease, have not been taken into consideration, and that the conditions in this tissue which render it susceptible to these influences have been entirely overlooked.

This fact is especially significant, for, in the examination of the various and more or less elaborate works on hay fever, we find no mention of any examination into the objective condition of the nasal passages, nor of any investigation as to the existence of any localized diseased condition which may predispose to the affection.

This is made more conspicuous when we consider the amount of labor expended during the past few years by the many hard workers, who have been carefully investigating the conditions of the tissue of the nasal cavity to discover the cause and means of cure of chronic nasal catarrh.

These investigations have revealed that the cause of nearly all of the most obstinate forms of nasal diseases, which have been considered incurable, can be removed, and the diseases more or less effectually and permanently cured.

These studies have also shown the nose to be a very important organ for maintaining in a normal condition all the organs with which it communicates, and have revealed relations existing between diseases of the nasal cavities and disorders of other and sometimes distant organs, which were before unsuspected.

As a further result of these investigations, it is clearly demonstrable that the special cause for hay fever does not alone reside in a special peculiarity of a special irritant which affects certain individuals in a peculiar manner, but in a special susceptibility of the tissue of the nasal passages of some individuals to be irritated by these substances when brought in contact with it; that this susceptibility of this tissue is occasioned by disease, either latent or active; that

* Read before the Medical Society of the State of New York, Albany, February 6, 1883.

the removal of this diseased tissue will remove the susceptibility to irritation by these substances; and that the train of symptoms which appear to be more or less of a constitutional nature, producing the asthmatic and nervous symptoms (which have led to the classification of the affection as a neurosis), is but the result of the irritation of the Schneiderian mucous membrane, which is reflected to other parts and organs through the agency of the sympathetic nervous system, causing irritation in these organs, which is augmented by the consequent obstruction to nasal respiration during the attack.

In the attempt to discover the cause and to explain the pathology of this affection, variously called hay fever, hay asthma, grass asthma, rose cold, June cold, peach cold, ragweed fever, pollen fever or pollen catarrh, *catarrhus æstivus* (or summer catarrh), autumnal catarrh, etc., three theories have been brought forward to explain its phenomena:

1st. That it is caused by the pollen of certain plants and grasses floating in the atmosphere, which, being inhaled into the nasal passages, produces in them a special irritation, which excites more or less systemic disturbance in other organs.

2d. That it is caused by the lodgment or development in the nasal passages of vibrios or minute organisms which induce the attendant symptoms.

3d. That it is a functional disease of the nervous system, a neurosis.

Hay fever has also been attributed to the influence of heat and light, and to the odor of certain animals and plants.

The first, or pollen theory, originated with the laity in England in 1819. They observed that their annual attack of this affection was coincident with the ripening of grasses and the mowing of hay, and therefore attributed it to the inhalation of the pollen given off from the ripened grasses. Thus arose the terms hay fever and hay asthma. This theory is the one generally held at the present time, and it is supported by the largest number of experimental observations.

The second theory originated with Helmholtz, in 1868, by his discovering in the secretions from his own nose vibrios or minute organisms, to which he ascribed his hay fever, for the reason that they could not be found in the secretions from his nose when free from the disease. In his letter communicating his discovery to Professor Binz, who first made it public (Virchow's "Archives," vol. xlv., p. 100), Helmholtz himself does not charge them with being the cause, but only with increasing the irritation.

In 1873 Dr. Salisbury ("Infusorial Catarrh and Asthma") discovered an animalcular organism which he called the *asthmatus ciliaris*, and to which he attributed the hay fever. This parasite is said to inhabit stagnant and running water, and to be developed in fermenting organic matter.

This animalcular theory has had many advocates, largely owing to the encouragement which it has received from the believers in the germ theory of disease; but as yet it has not been confirmed by other scientific and careful observers.

The third theory, that it is a functional disease of the nervous system, was brought forward mainly by the late

Dr. Beard, of New York, in his work on "Hay Fever." (New York, 1876.)

In ascribing the cause of the disease to the nervous system to explain the nervous phenomena which so frequently accompanied it, Dr. Beard evidently mistook the effect for the cause, since all these symptoms can be much more satisfactorily explained as arising by reflex irritation from the local affection in the manner already referred to.

A constitutional cause seems quite incapable of being the explanation of the annual recurrence of the disease at a definite season, and often at a definite day or hour, in persons in undoubted health and entirely free from all possible trace of nervous disorders during the remainder of the year.

The dependence of this affection upon the presence of pollen and other irritating substances floating in the atmosphere has been, by the most careful researches, conclusively established.

Dr. Blakeley, in his elaborate researches, found that during the summer months the atmosphere of certain localities, often to the height of from 1,000 to 1,500 feet, contains pollen grains in varying quantities, and that a small portion of this substance, even less than $\frac{1}{100}$ of a grain in weight, if directly applied to the mucous membrane of the nose of certain individuals, causes, within five minutes, occlusion of the nasal passages, with sneezing and lachrymation. This irritating effect is possessed by the pollen of all plants, but more especially by that of the Graminaceæ. ("Hay Fever," Manchester, 1880, second edition.)

The action of pollen upon the mucous membrane is explained by Berkart ("Asthma: its Pathology and Treatment," London, 1878, p. 146) in its behavior upon contact with water vapor and also with mucus, according to the observations of Lühe.

Under the microscope, pollen appears as a simple cell, with granular contents and a cell-wall, consisting of an outer and an inner membrane. The extine is coated with an oleo-resin of a rich amber color, or at times a pale straw color, and contains several slits or pores, across which the intine is stretched so as to impede the escape of the granular matter. It does not appear that the oleo-resin has any specific action beyond enabling the grains to adhere to objects to which they may approach. On the addition of fluid, the cell is distended; the inner membrane projects through the slits of the outer in the shape of small mastoid processes, to which the granules are attached. A further distension causes the membrane to burst, and the granular contents are, with considerable force, ejaculated into the surrounding fluid. These granules irritate the mucous membrane, especially the mucous glands, and reappear finally in the sputa, resembling zoöglæa masses.

It has been shown by Dr. Beard that the pollen of plants is by no means the only cause for these symptoms termed hay fever.

The most common cause has been shown by Dr. Beard to be dust in its various forms. In the 200 replies which he received to his letter of inquiry, coming mostly from the laity and which formed the basis for his book on "Hay Fever," dust (indoor and outdoor) is given as a cause 104 times, while hay (dried or fresh) but 38 times, flowers 31,

smoke 27, dampness 29, chills 25, cinders 23, brimstone matches 23, gas 23, fruit 22, cold winds 19, drafts of air 16, perfumes 13, roses 5, etc., enumerating in all 30 different causes.

To account for the preponderance of instances in which the individuals ascribed the cause of their attacks to dust, as stated by Dr. Beard, Dr. Blakeley says it should not be overlooked that nearly all forms of dust, during the hay-fever season, are more or less loaded with various kinds of pollen, as an examination of the dust will readily show.

Thus, we see that with these numerous and widely diversified causes we would be led to look to the parts affected for the explanation of the phenomena to discover why the inhalation of this diversified "invisible nastiness" (as Tyndall very appropriately terms it) should so often produce this common result.

Those who still believe in the nervous origin of the disease will ask: If the affection be due to a local cause, how is it that it will appear in persons each year on exactly the same day, and even at the same hour? These individuals are undoubtedly affected by the pollen of certain plants, and the precision with which some plants ripen annually all botanists know. This is also shown by the fact that on removal of the individual to a seaport or to a mountainous region, or to any other locality where the pollen of these plants is not found, he remains entirely exempt.

Accepting the local irritant theory as the true or only satisfactory one, we will briefly endeavor to show, anatomically and pathologically, how the train of symptoms—as, turgescence of the nasal mucous membrane, lachrymation, sneezing, asthma, etc.—follows as a result of these irritating substances lodging in the nasal passages.

Covering the inferior turbinated bones and the lower part of the septum there is a highly vascular erectile tissue analogous to the cavernous tissue of the genital organs, to which Professor Bigelow, of Boston, has given the name of turbinated corpora cavernosa. ("Boston Medical and Surgical Journal," April 29, 1875, vol. xcii, p. 489.)

This vascular erectile tissue is directly under the control of the vaso-motor nerves, and is exceedingly sensitive to impressions applied not only locally to the part, but to other portions of the body. Often it may be noticed that a draft of cold air striking another portion of the body will cause this tissue to become engorged sufficiently to occlude one or sometimes both nostrils, and it is the involvement of this tissue which causes the distressing sensations arising from a cold in the head.

Sometimes slight disease or hypertrophy of this tissue, and not sufficient to give the patient any special annoyance, will increase its susceptibility to irritation to a marked degree, and it is the irritation reflected from this tissue, through the sympathetic nerves to other parts and organs, which, as I shall endeavor to show, is the excitor of the varied and distressing symptoms complained of by hay-fever sufferers.

It is proved by experiments on animals that violent irritation of the Schneiderian mucous membrane will induce, through the sympathetic nerves, congestion and irritation in the larynx and lungs similar, though in a less degree, to

the derangements induced in the lungs by irritation of the larynx.

The most recent investigations of the sympathetic nerve-centers show that they possess in a marked degree a correlating function between near and distant organs.

This fact is clearly pointed out by Dr. Edmond Woakes in a very able article on the "Correlating Function of the Sympathetic Ganglia," read before the International Medical Congress held at London, August, 1881. ("Transactions," vol. ii, p. 75.)

He showed that the "afferent fibrillæ of a sympathetic ganglion, which are for the most part associated with sensori-motor nerves, are in reflex relationship with the efferent vaso-motor nerve furnished to the arteries from the same ganglion which receives the afferent fasciculi. In other words, an excito-vaso-motor function is established between the afferent and efferent elements of a given sympathetic ganglion. It is in this sense that these organs are said to exercise a correlating function in regard to such operations as belong to them, between tissue areas often widely separated."

It was first observed by Drs. S. Weir Mitchell, Morehouse, and Keen (in their work on "Gunshot Wounds and other Injuries of the Nerves," Philadelphia, 1864), that falling down, and sometimes momentary loss of consciousness, resulted from gunshot wounds of the brachial plexus, whether inflicted in the upper arm or neck, and was produced by the vessel dilatation in the brain caused by the reflex irritation through the inferior cervical ganglion. It is also well known by physiologists, as was first shown by Claude Bernard, that irritation of the fifth pair of nerves causes the side of the face to become red, the conjunctiva red, and its vessels congested.

Taking, for example, the frequent occurrence of giddiness or vertigo and noises in the head from deranged digestion, which has been so unaccountable, Dr. Woakes shows that it is due to congestion of the labyrinth from the vessel dilatation caused by the reflected sympathetic irritation from the stomach.

We have many other practical illustrations of this correlating function through the sympathetic nerve between near and distant organs.

Irritation of the larynx attended with cough is not infrequently induced by disease or by foreign bodies in the external ear. It is to be observed frequently that, in persons with apparently sound ears, even the placing of the end of the finger in the external auditory canal will provoke a violent paroxysm of coughing and engorgement of the vessels of the larynx.

This sympathetic irritation also exists between the larynx and ear in an inverse order, as shown by the severe earache so often produced by ulceration of the larynx. Otalgia, congestion, and inflammation leading to suppuration of the middle ear are not infrequently produced by diseased teeth, and also by disease in the nasal cavity unaccompanied by occlusion of the Eustachian tube.

A close sympathy also exists between the lachrymal apparatus and the nose, as seen by the marked and almost instant congestion of the conjunctiva and suffusion of the

eyes which follow the application of an irritant to the Schneiderian membrane.

This sympathetic connection between the different organs explains the frequent derangement of one organ caused by disease in another and sometimes distant organ, and is shown by the instances of laryngeal congestion and violent cough produced by irritation and disease of the uterus and its appendages.

Between the nose and the larynx a close and intimate relation exists. It is now a well-established fact with laryngologists that many cases of laryngeal hyperæmia and laryngeal irritation are induced entirely by disease in the nasal cavity through the sympathetic nervous communication between the two regions.

Voltolini first pointed out that many cases of asthma are provoked by the irritation from nasal polypi. ("Galvano-Kaustic," S. 246 u. 312, 1871.) Traube was the first to believe that a fluctuatory hyperæmia of the bronchial mucous membrane was the sole cause of dyspnoæal attacks ("Bemerkungen über cardiales Asthma," "Ges. Beitr. zur Path. und Physiol.," Berlin, 1878, Bd. iii, p. 209), and later investigations prove conclusively that engorgement of the pulmonary vessels does take place through vaso-motor nervous influence in the manner already described. Several careful observers, as Fränkel, Weber, Schaeffer, Bresgen, Biermer, Mulhall, and some others, believe that in many instances asthma, produced by this fluctuatory hyperæmia of the bronchial mucous membrane, is caused by irritation or disease of the terminal fibers of the nerves supplying the nasal cavity. This is observed more often in cases of chronic hypertrophic nasal catarrh, and is verified by the disappearance of the asthmatic symptoms on the removal of the cause in the nose.

In this manner is explained the intimate connection which so often is seen between these different regions. Thus, irritation of the terminal fibers of the spheno-palatine ganglion is communicated to the Gasserian ganglion which is located in the sensory root of the fifth; this communicates with the carotid plexus of the superior cervical ganglion of the sympathetic; this in turn communicates with the pneumogastric, which distributes its fibers to the larynx, lungs, heart, œsophagus, stomach, intestines, etc. We also have the otic ganglion, the ophthalmic ganglion, the maxillary ganglion, and the superior and inferior dental nerves all united in common through the sympathetic, in this beautiful system of nervous communication, and any or all of the parts may suffer from irritation set up in any one part, however remote it may be.

(To be concluded.)

THE NEW YORK CODE OF ETHICS.*

By C. B. HIGGINS, M. D.,

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THE adoption by the State Medical Society of New York of a code of ethics in conflict with that of the American Medical Association has been productive of much discussion, both for and against the innovation. At the last

meeting of the American Association, the action of the New York society was almost unanimously condemned, and, so far as I know, the position taken at St. Paul has been indorsed by a majority of the regular profession in this country.

I propose to-day to offer a few reasons why the course of the New York society should be sustained. In presenting my views on this subject, I shall notice but one of the objections advanced by the opponents of the change, and will lay no claim to originality, for the question has been so thoroughly discussed that it would be difficult to offer anything new. The principal objection urged against the new code is that it "obliterates the broad distinction which was previously easily recognized between scientific medicine and medical charlatanry." Were the ignorant and uncultivated alone imposed upon by charlatans, this objection would be insurmountable; but that such is not the case may be easily shown. From the time of the Æsculapian priests to the present there has never been originated a system of medicine, no matter how absurd, but that it has succeeded in securing the confidence and support of intelligent and thinking men. There is a trace of superstition in all of us which, fight it as we may, will influence, to a greater or less extent, our thoughts and actions. The recent weather predictions of the Canadian, Wiggins, illustrate in a striking manner the influence a positive and enthusiastic mountebank may have on the public mind. Thousands of well-informed people confidently expected the fulfillment of the weather quack's prognostications, and a number of newspapers (molders of public opinion) went so far as to publish maps describing the course of the expected storm. An ex-United States senator and cabinet minister recently horrified the religious world by giving a fashionable reception at his new home in Washington city on the Sunday evening preceding his daughter's marriage; the cause of this strange breach of social custom was the senator's fear that ill-luck would attend the house whose first hospitality was dispensed at a wedding.

Macaulay, in speaking of the liability of persons of learning and probity to become enlisted in the cause of new and fanciful forms of religion, says: "The truth is that no powers of mind constitute a security against errors of this description." The same may with propriety be said of those vigorous intellects which have been led astray by medical delusions.

With merely an allusion to the absurd practices which characterized the treatment of disease by the Æsculapian priests and the followers of Pythagoras, to whom scientific medicine owes its origin, I will pass to a more recent period for examples to illustrate this point. Paracelsus, the notorious quack who flourished in the sixteenth century, succeeded so well in imposing upon educated people as to secure the appointment of professor of physic and surgery in the university of Basel, and was for a time the leading medical man of continental Europe; the philosopher Erasmus, the most learned man of his day, was his friend and patron; to this "ignorant boaster" we are indebted for the introduction into the materia medica of one of our most valuable remedies. Cagliostro, "the quack of quacks," as Carlyle

* Read before the Eleventh District Medical Society of Indiana, at Marion, April 17, 1883. The society passed a resolution requesting the author to publish the paper in a journal of his own selecting.

styles him, in the latter half of the eighteenth century, was successful in duping the highest dignitaries of the countries which he visited; among the most ardent of this charlatan's supporters was a cardinal of the Roman Church. In our own time numerous distinguished examples can be found to sustain this position. The late President Garfield was a believer in the power of homœopathic pellets to combat disease. The distinguished senator before alluded to as having given the Sunday reception is an ostentatious advocate of the saving power of infinitesimal dilutions. The late Lord Beaconsfield, by reason of having employed a disciple of Hahnemann during his last illness, was the cause of a good deal of discussion on the subject of medical ethics.

In our own State a notorious specialist, who travels from town to town professing to cure consumption, issues handbills in which are printed certificates signed by an ex-governor of the State and by a bishop of a prominent religious body indorsing him as a skillful physician. A Cincinnati medical journal, a few months ago, in an editorial notice of the distinguished English physiologist, Professor W. B. Carpenter, expressed surprise that he should be a member of the Unitarian Church, as among his (the editor's) acquaintances of professors of that faith he knew no one who was not a homœopathist. I think these illustrations will serve to show that the patrons of charlatans are not found exclusively among the ignorant.

However much we may boast of modern progress and the superlative intelligence of this generation, there is no denying the fact that in the minds of a great many long-headed people the art of medicine is still associated with the supernatural; and, while humanity is obnoxious to incurable and fatal maladies, charlatanry will thrive, and the question for friends of scientific medicine to determine is, how best to restrain its advance and render it least harmful.

In continental Europe the members of the regular profession have never found it necessary to publish to the world a code of ethics declaring with whom they would or would not consult; they do not consider such action necessary in order to preserve the broad distinction which exists between scientific medicine and medical charlatanry; "there irregular physicians are not ostracized, but simply regarded as persons holding rather remarkable views concerning the action of medicines." In no countries is the regular school of medicine in higher standing, nor are irregulars less regarded, than in Germany, Austria, and France. In the United States and England, where it has been deemed essential, in order to protect the public, to publish a code of ethics declaring that irregulars were unworthy of confidence and unfit persons to meet in consultation, the effect has been to create a popular prejudice in favor of any school that may spring up in opposition to the old one. In this connection I will read an extract from a letter written to a Western medical journal by a physician in Philadelphia, explaining why it is that the profession there is annoyed to a less degree by irregulars and charlatans than in any large city in the country.

"Quacks are systematically ignored. They are treated

with uniform politeness, but kept at a distance, so that no discussion or dispute may give them the opportunity of claiming sympathy by raising the cry of persecution. No member has yet been excluded from the county society simply because he has adopted some exclusive practice; in other words, he is not hustled out simply because he is a homœopath, but he generally finds that the atmosphere is not congenial, and either sends in his resignation, or is dropped for non-payment of dues. In this way he is deprived of a gratuitous advertisement in the daily papers as a first-water martyr, and, instead of winning popular sympathy, he has no notice taken of him whatever, and he returns to obscurity."

This is a remarkable statement coming from Philadelphia, where the profession is almost a unit in opposition to the revised code. If this is not ignoring the old code in so far as it pertains to association with irregulars, I am unable to interpret its meaning.

That Drs. Agnew and Hamilton, whom we all honor for their eminent attainments, have not been disciplined by their respective county societies for consulting with the motley crowd that surrounded and ministered to the lamented Garfield on his death-bed, has not excited any special wonder. Owing to the prominence of the patient, to have refused attendance upon the case would have been professional suicide. If men in the higher walks of the profession may ignore the code in the case of a president, why may not the cross-roads physician, without fear of professional disgrace, offer suggestions to the "cow doctor" who is perchance in attendance upon the village shoemaker?

There is an inherent tendency in almost every man to champion the cause of the weaker party in any contest the origin of which is unknown to him, and the originators of new systems of medicine, the publishers of patent medicine almanacs, and others who are seeking recognition without reference to the merit of their claims, take advantage of this well-known phase of human weakness, and, when their pet schemes are attacked, raise the cry of persecution, generally to the discomfiture of the attacking party.

When the New York society made their now celebrated move in revising their code of ethics, the representative journals of irregular medicine, the country over, were loud and elaborate in derision of the action, realizing as they did that this step forward on the part of a few of the most prominent and intelligent physicians in the country would eventually result in depriving them of one of the main agencies which had been contributing to their advancement.

I would not advise any member of the regular profession to affiliate with irregulars, but I think it is a duty we owe to the cause of scientific medicine, and to the public, to remove from our code of ethics everything that can in any way promote the interests of charlatanry, and in our published proceedings to let nothing appear which will create sympathy for quackery.

As some one said when asked to prepare an article in refutation of some theory of the alchemists, "Let them decay in their own absurdity."

NOTES UPON CRYSTALLINE ELATERIN.*

BY GASPAR GRISWOLD, M. D.

ELATERIUM is certainly the best of the hydragogue cathartics, but it has of late fallen into great disfavor because different specimens of it vary so widely in strength. The market contains many preparations labeled "Dose, $\frac{1}{20}$ grain," of which, notwithstanding, as much as a grain may be given without producing any more effect than the same quantity of aloes. From this has arisen a lack of confidence in elaterium which deters many from prescribing it, especially in those critical cases in which it should find its best application.

The variations in the strength of elaterium are at once explained when we look at the manner in which it is prepared. The fruit, or cucumber, contains a central cavity filled with seeds floating in a fluid. If this fluid be poured into a flat dish and allowed to stand for an hour or two, a thin layer of sediment is deposited which is largely made up of crystals, the remainder consisting of resins and extractive substances. This sediment contains the purgative properties of the plant in great concentration; it is not deposited as a result of evaporation, but resembles rather a precipitate caused by some chemical action of the atmosphere upon the fluid. This sediment is so scanty that Clutterbuck obtained only six grains of it from forty cucumbers. If attempts be made to increase the sediment, either by evaporating the fluid or by adding to it the juice squeezed from the fruit, the substance so obtained is much less powerful than the original scanty sediment, and is observed to contain a larger proportion of resins and extractives, with very few crystals. The crystals were first isolated by Morries in 1831; he found that they possessed the characteristic purgative properties of elaterium, and that elaterium from which the crystals had been extracted was inert. He, therefore, concluded that the crystals constituted the active principle, and called them *elaterin*. Unfortunately, the name *elaterin* has since been loosely applied to various extracts of *elaterium*; only the true active principle is *crystalline*, however, and it is in that way easy to distinguish it.

From this short account it will be clear that good elaterium should consist exclusively of the first scanty sediment from the juice found free in the cavity of the cucumber; and that any attempt to obtain more of the drug by squeezing the fruit or evaporating the juice is attended with a deterioration in the quality of the article produced. In this way we have *elaterium fuscum*, *elaterium viride*, and *elaterium album*, all varying in strength, but differing from each other merely in the amount of inert extractive substances which they contain. No elaterium is at present manufactured which bears the name of Clutterbuck on the label, but George Allen & Co., of London, put up the first scanty sediment after Clutterbuck's method, and this is sold by McKesson & Robbins as Clutterbuck's elaterium.

Where the crude drug is subject to so much variation it is especially desirable to find an active principle which may

be relied upon, and, above all, one whose occurrence in definite crystalline form enables us to determine that it is free from adulterations or impurities. It is only necessary to call attention to the superiority of crystalline *aconitine* and *hyoscyamine* over the amorphous forms of the same, to show what an advantage crystalline *elaterin* possesses over the various amorphous extracts which bear the name. This advantage seems so obvious that it is hard to understand why crystalline *elaterin* did not at once take the place of all the unreliable preparations of elaterium; and yet two months ago not one dispensing druggist in the city had ever had a grain of crystalline *elaterin* in the shop! McKesson & Robbins and Eimer and Amend have had on hand for some years Merck's *crystalline elaterin*, but have never sold any. Many druggists answered in the affirmative when asked by the author if they had *elaterin*, but the article, when produced, always proved to be some amorphous extract.

The author obtained some of Merck's preparation from McKesson & Robbins, and found it to consist of white hexagonal crystals, as described by Morries in 1831, soluble in chloroform and in alcohol, but insoluble in water and ether. To test it clinically, the author has, during the last six months, given it to thirty-two patients in private practice, in the dose of one tenth of a grain, repeated in four hours if necessary. In nineteen of the cases one dose was sufficient; in nine cases the second dose was also taken; and in five cases the third dose was administered. In every instance the watery evacuations followed which characterized the action of elaterium. One patient, who was suffering from dropsy and chronic uræmia, took the remedy on four occasions in the course of three months, each time with great temporary relief. The drug was also given for me in twenty-eight cases in the Brooklyn City Hospital by Dr. William A. Pierrepont, the resident physician. I have received quite a full report of these cases, from which it appears that the crystalline *elaterin* acted as an efficient hydragogue cathartic throughout. It produced a remarkable result in one case of excessive dropsy from acute Bright's disease; the patient was a very large man, weighing 390 pounds on admission, and measuring 63 inches around the waist. After a week's treatment with *elaterin*, his weight had fallen to 316 pounds, his waist only measured 50 inches (only two inches more than his girth in health), and albumin had disappeared from the urine. In ten days he was far advanced in convalescence, and able to walk about.

The facts detailed in this paper seem to warrant the following conclusions:

"1. That the crystalline *elaterin* of Merck, now for sale in this city, is identical with that discovered by Morries in 1831, and is the active principle of elaterium.

2. That its definite crystalline form and freedom from impurity render it more reliable than any preparation of elaterium.

3. That the proper dose to commence with is one tenth of a grain; and that this may be prescribed in a solution of one grain of *elaterin* to half an ounce of alcohol, or in the form of tablet triturates, containing each one tenth of a grain. The last can be had at Fraser & Co.'s pharmacy.

* Read before the New York Academy of Medicine, April 19, 1883.

Clinical Reports.

NEW YORK HOSPITAL.

INTERNAL URETHROTOMY. HYDRARTHROSIS OF THE KNEE—SCHEDE'S TREATMENT. NECROSIS OF THE TIBIA, INVOLVING THE JOINT—AMPUTATION OF THE THIGH.

Clinical Remarks

By ROBERT F. WEIR, M. D.

II.

(Reported by R. C. SHULTZ, M. D.)

GENTLEMEN: The first operation which it is proposed to perform to-day is that of internal urethrotomy for the relief of a urethral stricture. Those of you who were present at the last clinic may be interested to know the result of the same operation performed upon another patient on that day. I am sorry to have to say that the result was not a good one; the patient died. You will remember I stated that the percentage of mortality, both from internal urethrotomy and from dilatation, was very small, and that there was very little difference indeed in favor of the latter mode of treatment. That internal urethrotomy had a death-rate, in 800 cases collected by Gregory, of 5.66 per cent.; that of dilatation, in Bryant's 565 cases, there was a mortality of 6 per cent. The past history and the present condition of the patient upon whom I operated on that day were so good as to give reason to believe that the case promised very favorable results; no contra-indication was found in the condition of the kidneys, which, so far as chemical and microscopical examination of the urine went to show, were perfectly healthy. It was believed and remarked upon, when discussing the risks of any urethral treatment, that if the patient should have urethral fever after an operation, he would be able to encounter it without special danger. But these hopes were not fulfilled. The patient passed through the first twenty-four hours after the operation comparatively well. Seventeen ounces of urine were secreted. After that, however, no more urine was passed until the third day, and then only about three ounces, which was withdrawn with the catheter. On the day following the operation the temperature fell to 97.4° F.; on the third day it rose to 105°, being the first evidence of what might be considered inflammatory action. The highest temperature attained was 106° F. The pulse early became very feeble, being inappreciable most of the time at the wrist, and very rapid. There was no hæmorrhage from the urethra. An examination of the urine obtained on the third day revealed some blood, pus, albumin, and epithelial and hyaline casts. The treatment consisted in the administration of the infusion of digitalis, of the fluid extract of the lily of the valley, of remedies for the relief of vomiting which occurred on the first day, of counter-irritants over the kidneys in the form of poultices and cups, and of the hot bath. The patient had no convulsion, but became unconscious toward noon of the third day, and died.

The post-mortem examination showed two clean-cut incisions in the urethral canal along its upper surface, one having been made by the urethrotome as it entered, and the other as it was withdrawn; slightly increased redness of the urethral and vesical mucous membrane was also found. The only condition present to account for the fatal result was intense congestion of the kidneys. The microscope revealed no antecedent pathological condition; the trouble was purely acute. I will not stop to theorize upon the probable cause of the nephritis, but will simply say that it may have been of reflex origin—that is to say, due to the irritation of the urethra or bladder, transmitted

to the kidneys by means of the nervous connection between these organs, an explanation we are compelled to accept in such cases as this; or, what is more common, a wave of inflammatory action may start from the urethra, sweep over the bladder and urethra, and in this way invade the kidneys.

Notwithstanding the unfortunate termination of the former case, I shall not hesitate to continue to do the operation in cases in which it seems to hold forth the best prospects of success, as I believe it will do in the case of the patient now before you. This man is thirty-two years of age, and has an antecedent history much more unsatisfactory than that of the former patient. His habits have been irregular; he had gonorrhœa for the first time eight years ago, and has had it a number of times since. Two years ago he noticed that the stream of urine was becoming small and twisted, and he was compelled to empty the bladder more frequently than before. Seven weeks ago he presented himself at the out-patient department of this hospital, and was treated by dilatation. It was observed that when the patient remained away for several days recontraction rapidly took place, and it has been thought best, principally from this fact, to perform internal urethrotomy, which we will now proceed to do. I succeeded yesterday in passing a filiform bougie into the bladder, fitting the stricture snugly, and gave instructions to allow it to remain in until to-day, so that the somewhat large and flexible conducting bougie could be more easily passed; but the house surgeon found that it was necessary to remove it in the course of the night, on account of the irritation that it produced; this is not an infrequent interruption. The situation of the stricture is found to be just anterior to the triangular ligament. In performing the operation after the patient is etherized and the conducting bougie introduced and screwed on, you will observe that I divide the stricture in the same manner as in the former case, passing the cutting edge of the knife of Maisonneuve's instrument along the upper wall of the urethra, by which procedure hæmorrhage is avoided, and, after it has cut its way through the stricture, turning it slightly to one side on withdrawing it, thus making two lines of incision through the strictured portion. This plan accomplishes an enlargement sufficient to pass a sound of the caliber No. 32 French, with a blade of 11 mm. in width, which with one cut would only divide to about 26 French.

HYDRARTHROSIS OF THE KNEE—PUNCTURE OF THE JOINT—INJECTION OF CARBOLIC ACID.

CASE II.—Our next patient is a negress, thirty-nine years of age, a laundress by occupation, and in good general health, who is suffering from hydrarthrosis of the knee joint. She fell, and struck the anterior surface of the right knee against a chair a little over a year ago. No marked pain or symptoms of acute inflammation followed, but the joint gradually swelled, and finally reached considerable size. The patient, however, was still able to be about, until six months ago the knee became so weak that it yielded under her weight. There was no special pain. When she entered the hospital, less than a month ago, the knee was enormously swollen, measuring sixteen inches and a half over the patella. An elastic bandage, and subsequently counter-irritants, were applied, but without marked result. The ligaments of the joint are considerably elongated, allowing of pretty free lateral motion and of separating the joint surfaces to some distance, so that they can be knocked together with an appreciable noise. There is at times an outward and backward dislocation of the tibia, to the degree that the external condyle rests on the internal tuberosity of the tibia. The amount of synovial exudation within the joint appears to be very considerable, and it doubtless contains more or less flocculent material. It is very seldom that we meet with a case in which there is so

great relaxation of the ligaments of the joint as exists in this patient. As you see, the leg can be flexed laterally on each side nearly to an angle of 45°. Having failed to produce any marked benefit by counter-irritation and pressure, resort will be made to a method which has lately been considerably practiced by the German surgeons Volkmann and Schede, but originated many years ago, I believe, by Bonnet, of Lyons. It consists in introducing a full-sized trocar into the joint at its outer and upper aspect, and withdrawing the accumulated fluid, and then in washing out the cavity, under considerable pressure, by elevating the reservoir containing the solution some eight or ten feet, with a solution of carbolic acid (1-20) until the injection returns perfectly clear. The operation is done under the spray, and without an anæsthetic. It may be necessary afterward, in case this fails, to follow the plan, largely practiced by Bonnet, of injecting tincture of iodine into the joint cavity, for the purpose of exciting an acute inflammation that shall supersede the old chronic process and lead to a permanent cure; or, as the relaxation of the ligaments is so great, even the more severe operation of excision of the joint may become necessary.

You will observe, after the eight ounces of reddish-colored fluid has been withdrawn, that, after repeated injections, the carbolic solution continues to return slightly tinged red, which doubtless is due to a small amount of oozing of blood within the joint cavity. A Lister dressing is now applied with firm pressure, and the joint immobilized with a plaster bandage.

Schede divides his many cases treated by puncture and washing out of joints into three groups: 1. Those where there is no reaction, or a very moderate one, and no further effusion. In these the joint functions are often fully restored at the end of two or three weeks. 2. Where the reaction shows itself as a mild synovitis which disappears rapidly, either spontaneously or under pressure. 3. Those where there is no reaction, but a recurrence of the effusion, which may disappear quickly or may remain.

To the first and second classes belong the cases of serous effusion without secondary changes, light catarrhal suppurations, and blood extravasations.

To the third class belong the older cases with thickening of the capsule and the perisynovial tissues, and relaxation of the ligaments. These demand energetic irritation and repetition of the injection once or several times, with either stronger solutions of carbolic acid or with tincture of iodine—diluted or of full strength.

His directions concerning the after-treatment of chronic joint effusions managed in this way are to remove the bandage at the end of six days, when the wound will be found closed. The joint may then present itself, either without any effusion or inflammation, in which case the patient is kept in bed two days longer with an elastic flannel bandage and posterior splint, and three days later moderate movements are permitted. In most instances, in two weeks the joint functions are found to be normal. Should, however, an effusion be recognized when the first dressing is applied with a tolerable amount of pain, a longer rest, with some after-compression, may be needed; an acute synovitis is in some cases necessary to a cure.

NECROSIS OF THE HEAD OF THE TIBIA, INVOLVING THE KNEE JOINT —AMPUTATION OF THE THIGH.

CASE III.—This patient has also an affection of the knee joint, which resulted from a blow received upon the anterior surface of the left knee three years ago. Acute synovitis resulted, with slight tenderness and swelling. The joint then became stiff. The patient was soon able to go about on the limb, although he was unable to bend the joint. His knee troubled him in a slight degree from time to time subsequently, but it was

not until three months ago that, after severe exposure, acute inflammation again set in and resulted in an abscess, which opened, and, from the resulting sinus, some small pieces of bone were discharged. On his admission to the hospital, six weeks since, there was only a little elevation of the temperature, but there were present slight night-sweats, and the man's condition in general was rather low. An abscess existed external to the knee joint, which was opened, and it was believed that there was pus in the joint cavity itself, but the point whether the distension was due to serum or other fluid could not be absolutely demonstrated until later, when a spontaneous opening developed. During the improvement of the patient's general condition it was noticed that the interarticular cartilage had disappeared, and that the exposed joint ends of the bone could be made to grate upon each other. Through two of the openings, bone could be detected, and by that over the tibia the probe could be carried into the joint cavity. The man's kidneys seem to be sound, and it is thought best, considering his age (fifty-three years), and the great liability to septic poisoning in such an extensive suppurating surface as this is, to amputate the leg above the knee joint rather than to wait longer with the hope of saving the limb. However, to follow the rule of Mr. Swaim, we will first cut down upon the joint, and be guided in our further steps by the condition which it may be found to present.

You will observe, after I have done this, that both the articular cartilage and the bony structure of the joint have been involved in the necrotic process, and that the limb has, therefore, been amputated at the junction of the lower and middle thirds of the thigh above the seat of the abscesses, by a long anterior and a short posterior skin-flap. This method, known as Carden's, though not strictly so in this locality, carries the cicatrix behind the bone out of the line of pressure. It is open to the objection, however, that some risk is met with in the tendency of a long skin-flap to slough.

The wound has been closed, after being washed out with a carbolic solution, by a continuous catgut suture, soaked in sulphurous acid; over this is placed a pad of iodoformed peat, two and a half per cent., and then one of peat that has been immersed in a solution of carbolic acid (1-20), the whole secured by a compressing baudage.

Book Notices.

Spirillum Fever; Synonyms: Famine or Relapsing Fever; as seen in Western India. By H. VANDYKE CARTER, M. D. Lond., Surgeon-Major I. M. D., etc. London: J. & A. Churchill, 1882. Pp. viii-446.

WE scarcely know whether to regard it as an unfortunate or a fortunate circumstance that few, if any, such thorough and elaborate monographs as the one before us have been, or are likely to be, issued from the medical press. Certes, if we had a commensurate octavo volume on each of the many hundred ills that flesh is heir to, no one man's lifetime would suffice to master their collective contents. But, judging Dr. Carter's work on its own concrete merits, the most captious critic could have no hesitation in ranking it as a model of accurate and exhaustive observation, conducted in a truly scientific spirit. Although "relapsing fever" is happily of rare occurrence in the experience of American physicians, it possesses much interest from the fact that it is one of the very few human maladies accompanied by the presence and multiplication of a micro-organism of unmistakable character, and hence affords peculiar advantages for study bearing on the much vexed "germ theory." In

other diseases skilled observers may differ in their descriptions of the alleged specific microphytes. Klebs and Pasteur do not agree as to the appearance of the bacillus of porcine pneumo-enteritis; several different forms of bacteria have been assigned to enteric fever; three or four widely diverse organisms have been credited with the causation of paludal miasm: even the bacillus anthracis is morphologically indistinguishable (except by Koch) from its hay-infusion congener when at rest; and the list of doubts or discrepancies in observation might be tediously extended. But Obermeier's spirochæte is recognizable and recognized everywhere, distinctly differentiated from its only competitor, the *S. plicatilis* of water, and figured alike by pathologists in all latitudes where relapsing fever has been studied. It is, therefore, with less uncertain steps than in most other fields of similar inquiry that the relation of the schizophyte to the pathological phenomena can be considered; and to such consideration the author has addressed himself with rare patience and impartiality.

Prior to 1877 relapsing fever had not been recognized in Western India; but, following upon the drought and dearth which then occurred, the disease assumed epidemic proportions, and during the ensuing two years caused an enormous increase of mortality in the infected districts. The actual statistics of its fatality seem uncertain, since the generic term "fever" in India, as elsewhere, serves in mortuary returns to cover a multitude of dubious diagnoses, and many cases of spirillar infection were probably reported under the convenient title of "remittent." The author's own observations in the two hospitals under his supervision cover over six hundred carefully verified instances. From these data is given a minutely detailed clinical history of the disease in all its phases, with its modifications, complications, and sequelæ. Aside from the typically marked cases, we learn of obscurer variations, ranging from a form resembling exanthematic typhus to one mistakable for "febricula"; all, however, having the common diagnostic bond of the presence of spirilla in the blood immediately before and during the febrile stage. Dr. Carter's investigations warrant the assertion that the ætiology of the malady is independent of telluric and climatic influences; that "its essential relations are with poverty as much as famine," over-crowding appearing to be the principal predisposing factor; and that the transference of a specific contagion is demonstrable in most instances and probable in all. The curious phenomena of the rapid disappearance of the spirilla at the close of the pyrexial period, and their almost equally rapid reappearance in the "relapse," naturally point to some hitherto unnoticed stage of their life-history, and the author has observed "minute free particles of rounded form, others elongated, tailed, clubbed or knobbed in the middle; often distinct filaments, short, bent, or even spiral, and in fresh blood not devoid of movement." These, he suggests, may represent the spore development of the spirillum; but, in view of the inherent difficulties of determining the respective rôles of different elements in morbid blood, he does not regard the proposition as proved; it is, however, "noteworthy that these aspects were commonest near the end of specific fever, when the spirillum is about to disappear, and when increased germ-production might be anticipated." Moreover, granular cells and protoplasmic masses, swarming with granules resembling micrococci, were observed during the latter part of the incubation stage, before the appearance of the fully developed spirillum. "Some granule cells were quite peculiar: in them the granules were bright, uniform, and active, and clearly were not fat; they either radiated round a central nucleus, or were disposed in wavy, spiral, or reticulated lines, as if prefiguring some filament within. Sometimes the whole cell was occupied with granules in active swarming movement, which probably escaped by rupture." In

artificial culture experiments, the author's results in the main agree with those of Koch; but, in addition to the aggregation of long interlacing filaments, Dr. Carter has noticed that "often the filaments soon become dotted with bright or opalescent spots, and clusters of bright granules may form at their free ends. Multiplication by segmentation and by growth from bright granules, either attached or free, may be indicated." None save those who have undertaken the study of the life-history of bacterial organisms can appreciate the many sources of fallacy attending such examinations, or sufficiently admire the modest candor of the author as regards observations which the average French or German microscopist would deem an ample basis for any amount of dogmatism. Of the general results we have given but a cursory sketch; for the many minutiae of methods and descriptions we must refer the reader to the book itself, which will fully repay perusal.

BOOKS AND PAMPHLETS RECEIVED.

Medical Essays. 1842-1882. By Oliver Wendell Holmes. Boston: Houghton, Mifflin & Co., 1883. Pp. x-445. [Price, \$2.]

Hand-book of the Diagnosis and Treatment of Diseases of the Throat, Nose, and Naso-Pharynx. By Carl Seiler, M. D., Lecturer on Laryngoscopy at the University of Pennsylvania, etc. Second edition, thoroughly revised and greatly enlarged. With seventy-seven illustrations. Philadelphia: Henry C. Lea's Son & Co., 1883. Pp. 295.

Transactions of the Obstetrical Society of London. Vol. XXIV, for the year 1882. London: Longmans, Green & Co., 1883. Pp. lviii-339.

A Reply to "The Academy's" Review of "The Wine Question in the Light of the New Dispensation." By John Ellis, M. D. New York: Published by the author, 1883. Pp. 270.

Woman's Place To-day: Four Lectures in Reply to the Lenten Lectures on "Woman" by the Rev. Morgan Dix, D. D., Rector of Trinity Church, New York. By Lillie Devereux Blake. New York: John W. Lovell Company. Pp. 173. [Price, 20c.]

Twenty-third Annual Report of the Superintendent of the State Asylum for Insane Criminals, Auburn, N. Y., for the year ending September 30, 1882.

Sixty-ninth Annual Report of the Trustees of the Massachusetts General Hospital and McLean Asylum, 1882.

The Pathology and Morbid Anatomy of Tubercle. By N. Senn, M. D., Milwaukee. [Reprint from the "Transactions of the State Medical Society of Wisconsin."]

Case of Radical Cure of Inguinal Hernia: Approximation of the Pillars of the Ring by means of Chromicized Catgut—Recovery. By James Whitson, M. D., etc., Glasgow. [Reprint from the "Medical Times and Gazette."]

PERMANGANATE OF POTASSIUM IN DIABETES.—As long ago as 1853, says the "Lancet," permanganate of potash was recommended in diabetes by Sampson, and it has been again tried during the last six years by Masoin, who, in a communication to the Académie de Médecine of Brussels, states that he has met with instances in which the treatment was most successful, and others in which it has failed completely. In order to ascertain the reasons for this difference, he excludes the base as probably without any influence; he further expresses his belief that the oxygen is not the active agent, and hence he concludes that its effect must be due to the manganese. He conjectures that its influence is probably exerted on the liver. Manganese is eliminated by this organ, and even small doses injected under the skin cause fatty degeneration of this organ. Masoin has further observed that manganese is especially useful in those cases in which there is hepatic engorgement.

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THE ETHICAL STATUS OF FELLOWS OF THE ACADEMY
OF MEDICINE.

It is acknowledged by many who are opposed to the old code of ethics that all Fellows of the New York Academy of Medicine are still bound by the code of ethics of the American Medical Association, that code having been adopted by the Academy, notwithstanding the late action of the Medical Society of the State of New York in superseding the code of the American Medical Association by a code of its own. We take it for granted that no Fellow of the Academy who has duly reflected upon the matter can entertain the slightest doubt as to the propriety of his conforming to the Academy's code so long as he retains his fellowship.

Certain collateral questions have been raised, however, and it is well that they should be considered by those who may take part in the controversy now in progress over the matter of codes. That they may be considered intelligently, it seems proper to ascertain, in the first place, precisely what stand the Academy has taken in regard to matters of ethics. The Academy of Medicine was incorporated June 23, 1851, by a special act of the Legislature. It therefore derives all its powers from the State. The following extracts from the act of incorporation, from supplementary acts passed subsequently, and from the constitution and by-laws, may be said to have some bearing on the questions to which we allude:

[Act of June 23, 1851.]

"Sec. 2. The said corporation shall have power to make and adopt a constitution and by-laws, rules and regulations for the admission, suspension, and expulsion of its members, and their government."

"Sec. 6. The Legislature may at any time alter or repeal this act."

[Act of June 4, 1853.]

"Sec. 5. The corporators hereby incorporated are authorized to appoint five delegates to represent them in the State Medical Society, with all the powers and privileges which delegates from the respective Medical Colleges of this State possess."

[Constitution.]

"Article II. The objects of the Academy shall be: . . . *Second.* The advancement of the character and honor of the Profession."

"Article III. 1. Each candidate for Resident Fellowship must have been a graduate or licentiate in medicine residing in this city and county, or in either of the counties of this State thereunto adjoining, for three years."

"Article VII. Section 1. Every Fellow shall be furnished with a duly authenticated certificate of fellowship, which may be revoked for cause; and in case of refusal to surrender the same, the Academy may publish such revocation in the public journals.

"Sec. 2. Any Fellow, having complied with the requirements of the Constitution and By-laws, may resign his fellowship, by presenting at a stated meeting a communication in writing to that effect.

"Sec. 3. No resignation shall be valid until accepted by the Academy."

"Article VIII. The Academy reserves the right of punishing violations of its regulations, or of its code of Medical Ethics, by reprimand, suspension, or expulsion, and will recognize no Fellow as a regular practitioner who has been expelled."

[By-Laws.]

"IX. Boards and Committees. . . . Sec. 4. If an officer shall fail to discharge his duties to the satisfaction of the Academy, he may be dismissed from his office by a two-thirds vote; but no motion for dismissal shall be acted upon until the next stated meeting; prior to which meeting the Recording Secretary shall notify the alleged delinquent of such motion."

"XIII. Committee on Admissions. Section 1. Each candidate for Resident Fellowship . . . may be admitted at a meeting subsequent to his recommendation by the Committee."

"Sec. 3. . . . and should this committee fail to report within the time specified upon any nomination submitted to them, any Fellow having made such a nomination may renew the same directly to the Academy, and a vote shall be taken upon it; in this case, however, the affirmative vote of four fifths of the Fellows present, as ascertained by ballot, shall be requisite to insure an admission; and on the question being put, it shall be distinctly stated that the nomination has not been approved by the committee."

"XIV. Committee on Medical Ethics. . . . Sec. 5. All questions of ethics in other respects shall, as far as applicable, be adjudged in accordance with the Code of Ethics promulgated by the American Medical Association and adopted by the Academy."

"XXI. Signing the Constitution and By-Laws. Section 1. Every duly admitted Resident Fellow shall affix his signature to the Constitution and By-Laws within two months after his election; and in default thereof, said election shall be deemed void, unless a satisfactory excuse be given; nevertheless, he may be renominated and re-elected."

The bearing of some of the passages cited may be remote and contingent on points not at all certain to come up in this controversy, but, in view of the unexpected turn that the struggle has taken from time to time, it is well, we think, to bear them all in mind. The first deduction to be drawn from them is, that the Academy has full power to make and enforce such rules as it sees fit in regard to the admission, the government, the suspension, and the expulsion of members, provided, of course, those rules do not run counter to the laws of the State. It therefore had a perfect right to instruct its Committee on Admissions in the way it recently did instruct them by adopting Dr. Flint's resolutions. The question of the wisdom of that action is quite another matter.

Passing over the points that may be involved in several of our citations, we come to that article of the constitution in which the Academy reserves the right to punish violations of its regulations. Taking that article in connection with the fifth section of the fourteenth article of the by-laws, we seem to have the essentials of the Academy's requirements in the matter of ethics. We began by saying, in substance, that no reasonable person could doubt the duty of every Fellow of the Academy to govern his conduct in accordance with those requirements. But much more than this has been urged in some quarters. We have heard it gravely stated, for instance, not only that a Fellow of the Academy was bound to conform to its code of ethics so far as his individual acts were concerned, but that he was bound to uphold that code in every possible way—that, in fact, he was debarred from opposing the adoption or the maintenance of that code in other organizations, or even expressing an opinion unfavorable to it. It has been stated, too, that

every Fellow signed his name, at the time of joining the Academy, to an engagement of the nature of an oath, binding him to the course here defined.

Now let us look into the validity of these remarkable statements. For the moment we will put aside the matter of the alleged oath, and consider whether, on general principles, a member of an organization is for ever debarred from raising his voice against the rules which he finds in force in that organization. If such were the accepted principle, no rule or law of any sort would ever be repealed or amended, and our civilization would find itself so clogged that there would be no such thing as progress. Such a state of things would be intolerable. But it is quite unnecessary to pursue the theoretical argument in this direction, for the Academy has expressly provided for the repeal or amendment of any and every part of its constitution and by-laws. Manifestly the originators of this provision did not take pains to provide for measures that they intended to make impossible. But how is any repeal or amendment to be accomplished unless some one moves it, and how is such a motion to come about save as the result of opposition to the existing state of things? The *reductio ad absurdum* is obvious. And certainly whatever provisions for repeal or amendment apply to the constitution and by-laws as a whole, apply to every part of those documents, the ethical part included.

The next erroneous piece of doctrine inculcated is, that a Fellow of the Academy has no right to work against its code in another organization. The application is, that a Fellow of the Academy is debarred from opposing the re-enactment of the code of ethics of the American Medical Association, which is the Academy's code, in the State Medical Society. This is tantamount to saying that a Republican congressman from a Democratic State has no right to act against the Democratic party in Congress—a doctrine so obviously absurd that it would fail to gain the assent even of the most bigoted conclave of propagandists.

As to the alleged oath, or something of the nature of an oath, we may say, in the first place, that nothing of the sort is to be found in the published requirements for fellowship, and that, being therefore not necessary to be signed, if it has any existence at all, it has been interpolated surreptitiously, has been signed in ignorance if signed at all, and has not the slightest particle of validity.

The simple truth is, that, as a little reflection would teach any man of common sense, a Fellow of the Academy of Medicine, while unquestionably bound to abide by its rules in the matter of his personal conduct, is perfectly free to argue and vote against those rules in the Academy, and as free as any other member of the profession to oppose them in other organizations, or with the profession at large. Moreover, any opponent of the Academy's code, or of any of its rules, can sign its constitution and by-laws with a clear conscience and with perfect propriety, in case he should chance to be elected to fellowship, for by so doing he binds himself only as to his own observance of that code and those rules, and not by any means to be

fettered by them in the matter of his opinions or as to making all honorable efforts to spread those opinions or to secure their adoption in the Academy or elsewhere.

PUBLIC SENTIMENT TOWARD THE MEDICAL PROFESSION IN NEW HAMPSHIRE.

The newspapers announce that one Dr. O. C. Gage, of New York, was arrested in Dover, N. H., last Saturday, charged by a medical student with practicing medicine without a license from a medical society in the State of New Hampshire. In itself the incident is not very remarkable, but the dispatch to the "World" concludes as follows: "It is believed that his arrest was instigated by the medical profession here, but they will not admit it." This seems to imply either that the state of public sentiment in the locality in question is such that the medical profession dare not take measures against illegal practice, or, having taken such measures, dare not acknowledge the fact. That ground should exist for either supposition is a disgrace to the people of Dover. Were the real attitude of the medical profession toward quackery unveiled to the public instead of being elaborately disguised with codes of ethics, a true understanding would soon be reached, and the profession would be supported rather than hampered by public opinion in its endeavors to put down quackery.

THE PROPOSED MEDICO-LEGAL JOURNAL.

It is announced that the publication of a quarterly journal of medical jurisprudence will soon be begun in New York. Although the expense of the venture is to be borne by a corporation to be organized for the purpose, the Medico-Legal Society has promised substantial encouragement to the scheme by subscribing for one hundred copies for exchange purposes, stipulating in return that its members shall have the benefit of a reduced rate on individual subscriptions.

We lately referred to the unsatisfactory way in which the society's proceedings, including much valuable matter, have hitherto been published, and we presume that the society, recognizing that fact, now counts upon seeing its proceedings appear in the new journal in a proper form. That this expectation may be realized, and that in all other respects the proposed journal may prove a substantial addition to the periodical literature of medicine, we earnestly hope. It is stated that the first number will appear shortly.

Most creditable journals devoted in great part to forensic medicine have been published in New York in the past, and the neurological journals of the present time contain a great deal of valuable matter relating to that branch of medical science. With these the new journal must compete, besides laboring under the disadvantages attaching to its restricted scope. To make it succeed, therefore, it is particularly necessary that it should be well managed. The Provisional Committee for shareholders, over whose signatures the announcement appears, contains several gentlemen whose connection with the undertaking augurs well for its success, however.

FRENCH JOURNALISM AND "AMERICAN QUACKERY."

IN the "Union médicale" for April 17th we find brief abstracts of two articles that appeared in the "Therapeutic Gazette" for September, 1882. One of them is by Dr. Brewer, describing the physiological effects of manaca, and the other by Dr. Pepper, recounting a case of acute rheumatism in which the same drug was used with success after the failure of guaiacum, salicylic acid, bromide of potassium, and hypodermic injections of morphine. An individual who signs himself "L. D." adds this query: "*Serions-nous en présence d'un succédané de l'acide salicylique ou bien seulement d'une tentative d'ameri-* can Quackery?"

We would suggest to that exquisite satirist that, if he must bring in English phrases, it would be just as well to write them correctly, beginning the word American with a capital letter, and the word quackery with a small letter. We would also observe that the page which succeeds that in which he indulges in his elaborate sneer is wholly taken up with an article headed "*à propos de la suralimentation*," in which the author, one "M. le docteur de Servièrès, ancien interne des hôpitaux," sings the praises of *la peptone phosphatée (vin de Bayard)* in a disguised advertisement.

THE BOARD OF HEALTH AND ADULTERATED TEA.

AN auction sale of a large quantity of tea was recently stopped by an injunction obtained at the instance of the New York Board of Health, to the great astonishment of the assembled brokers, as the newspapers remark. It seems that the so-called Ping-Suey teas were really of an inferior grade, adulterated, as the board's analysis declared, with deleterious mineral matter, so as to make them resemble what they were advertised to be.

It is impossible to overestimate the value of such a service as the board has rendered the community by this timely and summary action, assuming the facts to be as they are represented. Setting aside the cases of acute poisoning, but too commonly the result of spoiled or sophisticated articles of food, there can be little doubt that a great proportion of the dyspepsia and other chronic deterioration of health in civilized countries is due to the slow but continued injury done to the system by eating and drinking articles that are contaminated with foreign matter, as the result either of accident or of cupidity. In most instances, we believe, the retail dealer is innocent, or, at least, fails to appreciate the consequences that may come to those who consume the commodities in which he deals. The importer and the producer, while naturally feeling less responsibility, are under greater temptations to disguise the imperfections of their goods even by means that they must know are injurious, for they have a strict market to deal with. Such questionable transactions on their part are not likely to be discovered in the ordinary way until after widespread injury has had time to result; hence the necessity of constant watchfulness by sanitary organizations possessed of the resources necessary for the prompt detection of adulteration, and clothed with power to deal summarily with its perpetrators.

THE DIXMONT LUNATIC ASYLUM.

A JOINT committee appointed by the Legislature of the State of Pennsylvania to inquire into the matter of the alleged unsatisfactory management of the Hospital for the Insane at Dix-

mont have presented a majority and a minority report. In the former, the charges of maltreatment of patients, and of their detention after their recovery, are not substantiated, but it is urged that the State, which contributes largely to the support of the institution, ought to have the control of its management. The report also contains the excellent recommendation that the medical officer of an asylum for the insane ought to be relieved of the business administration of the establishment. We trust that the committee's suggestion may lead to legislative action in the direction alluded to. The day is not far distant when it will come to be recognized that the creditable management of such institutions can not be secured by placing it in the hands of a man who is expected to be an alienist, a financier, a landscape gardener, and a farmer.

THE MARYLAND MEDICAL JOURNAL.

THE first number of the weekly issue of the "Maryland Medical Journal," dated May 5th, being the first number of the tenth volume, has reached us, and it gives us pleasure to notice the continued excellence of the journal. In its general appearance it does not differ materially from the semi-monthly series. The editors, Dr. Thomas A. Ashby and Dr. Eugene F. Cordell, deserve great credit for the manner in which they have conducted it heretofore, and we have no doubt that they will carry it to a still higher level of prosperity and usefulness.

Proceedings of Societies.

COLLEGE OF PHYSICIANS OF PHILADELPHIA.

Meeting of February 17, 1883.

A PARTIAL STUDY OF THE POISON OF HELODERMA SUSPECTUM (COPE)—THE GILA MONSTER.—The following paper, by S. WEIR MITCHELL, M. D., and EDWARD T. REICHERT, M. D., was read: For some years past it has been known to naturalists that the Gila lizard of Arizona and Sonora was endowed with anterior deciduous grooved teeth, which communicated by ducts with large glands within the angle of the lower jaw. These arrangements naturally suggested a certain power of poisoning, as to which, however, the most conflicting accounts have reached and continue to reach us from Arizona. In many houses the sluggish creature shown to you was a pet of children, and seems to have been averse to using his weapons of offense. The occasional accidents from his bite were variously explained away; but still, among the Indians and some settlers, he enjoyed an evil reputation. Only within a week we have had two letters from Arizona, the one describing him as "more peaceful and harmless than a young missionary," and the other as being "worse than a whole apothecary shop." Nevertheless, both in France, and of late in London, specimens have bitten and promptly killed small animals.

It is worth while to mention more distinctly some of the evidence for and against the poisoning power of Heloderma. His bad name in Mexico is mentioned by Bocourt and Dumeril, but Sumichrast is more full in his statements.

This curious lizard is, he says, slow and embarrassed in his movements, and hides in the daylight, and especially in dry weather, to emerge at night and in wet seasons. He is said to smell ill, in fact, to be of a nauseating odor, and is described as slobbering forth a sticky, whitish saliva when irritated. The natives, says Sumichrast, hold him in the utmost terror, and consider him as more fatal than any serpent. When made to bite a fowl, it died in twelve hours, with bloody fluid exud-

ing from its mouth, the wound being of a purple tint. A cat bitten was very ill, but recovered, remaining thin and weak. The *Heloderma horridum* sent to London, to Sir John Lubbock, killed a frog in a few minutes, and a guinea-pig in three minutes.

Many years ago Dr. Irwin, U. S. A. ("Amer. Naturalist," Nov., 1882), experimented in New Mexico with the Gila monster, and concluded it to be harmless, while Mr. Horan, Superintendent of the National Museum, says he himself has been several times bitten without serious results. The following statement of Dr. Shufeldt (*ibid.*) adds a further difficulty in making up our estimate of the powers of *Heloderma*. The lizard he speaks of is the one we now exhibit. It was sent to the Smithsonian Institution by A. T. Burr, U. S. A., and is the *H. suspectum* of Cope.

On the 18th inst., in the company of Professor Gill, of the Smithsonian Institution, I examined for the first time Dr. Burr's specimen, then in a cage in the herpetological room. It was in capital health, and at first I handled it with great care, holding it in my left hand, examining special parts with my right. At the close of this examination I was about to return the fellow to his temporary quarters, when my left hand slipped slightly, and the now highly indignant and irritated *Heloderma* made a dart forward and seized my right thumb in his mouth, inflicting a severe lacerated wound, sinking the teeth in his upper maxilla to the very bone. He loosed his hold immediately, and I replaced him in his cage with far greater haste, perhaps, than I removed him from it.

By suction with my mouth, I drew not a little blood from the wound, but the bleeding soon ceased entirely, to be followed in a few moments by very severe shooting pains up my arm and down the corresponding side. The severity of these pains was so unexpected that, added to the nervous shock already experienced, no doubt, and a rapid swelling of the parts that now set in, caused me to become so faint as to fall, and Dr. Gill's study was reached with no little difficulty. The action of the skin was greatly increased, and the perspiration flowed profusely. A small quantity of whisky was administered. This is about a fair statement of the immediate symptoms; the same night the pain allowed of no rest, although the hand was kept in ice and laudanum; but the swelling was confined to this member alone, not passing beyond the wrist. Next morning this was considerably reduced, and further reduction was assisted by the use of a lead-water wash.

In a few days the wound healed kindly, and in all probability will leave no scar; all other symptoms subsided without treatment, beyond the wearing for forty-eight hours so much of a kid glove as covered the parts involved.

After the bite our specimen was dull and sluggish, simulating the torpidity of the venomous serpent after it has inflicted its deadly wound, but it soon resumed its usual action and appearance, crawling in rather an awkward manner about its cage.

The specimen shown has eaten once since we have had him, but the Gila monster is said to live on bird's eggs, and to eat daily of like food while in captivity.

The sluggish habits ascribed to *Heloderma* in general have been noticed in our specimen; but it is clear, from Dr. Shufeldt's accident, that, like the habitually inert *Crotalidæ*, this creature is capable of sudden, and, therefore, unexpected agility in attack.

As we shall have sent to us in the spring a number of *Helodermas*, we shall then be able to complete the study of the poison of these interesting lizards—the only members of the family of lizards as yet known to be poisonous. The subject is, however, too full of interest to delay the publication of our preliminary study, since, as far as it has gone, it is perfectly definite and satisfactory.

The Gila monster inhabits the dry hillsides of Arizona, and is said to reach the length of three feet.

The specimen we exhibit is about fourteen inches long, and, from war or accident, had, when he reached us, lost all but two of his teeth, and as yet no new ones have taken their places. Without them he would certainly be as harmless as a rattlesnake deprived of his fangs; and as these teeth are very small and easily removed, their absence may account for some of the instances in which the lizard has bitten and done no grave harm.

Experiments made in the usual vague way, by allowing the lizard to bite animals, are obviously untrustworthy; so that it was thought best to use the saliva in known quantities. The fluid was obtained by provoking the animal to bite on a saucer-edge—which it was most indisposed to do. When once it had seized the saucer it was hard to pull it away, so powerful was the grip of the lizard's jaws. After a moment, a thin fluid like saliva dripped in small quantities from the lower jaw. It was slightly tinted with blood, due to the violence of the bite, and it had a faint and not unpleasant aromatic odor. The secretion thus collected from the mouth was distinctly alkaline, in contrast to serpent venoms, which are all alike acid.

Experiment I.—About four minims were diluted with one half cubic centimetre of water, and thrown into the breast muscles of a large, strong pigeon at 4.23 P. M. In three minutes the pigeon was rocking on its feet, and walking unsteadily. At the same time the respiration became rapid and short, and at the fifth minute feeble. At the sixth minute the bird fell in convulsions, with dilated pupils, and was dead before the end of the seventh minute.

The first contrast to the effects of venom was shown when the wound made by the hypodermic needle was examined. There was not the least trace of local action, such as is so characteristic of the bite of serpents, and especially of the *Crotalidæ*.

The muscles and nerves responded perfectly to weak induced currents, and to mechanical stimuli.

The heart was arrested in the fullest diastole, and was full of firm black clots. The intestines looked congested. The spine was not examined.

Experiment II.—Action on the Arterial Pressure.

	TIME. Min. Sec.	PRESSURE. Mm.	REMARKS.
Normal.		110	
Injection.	.0		
	.3	100	
	.5	80	
	.10	60	
	.15	70	
	.20	66	
	.30	50	
	1.	50	
	2.	44	
	3.	32	
	4.	26	
	5.	20	
	8.30		
	10.		
	10.30		
	11.10		
	11.30		
	12.		
	12.30		
	14.30		
	15.		
	16.		
	17.		
	18.		
	19.	Death.	

Convulsive movements.
The pressure gradually declining to 7 mm., when the animal expired.

Action on the Pulse.

	TIME. Min. Sec.	PULSE. in 10 sec.	PULSE CURVES. Mm.	REMARKS.
Normal.....		57	.7	
Injection.....	.0			
	.15	57	1.0	
	.30	54	1.2	
	1.	51	1.0	
	2.	53	.8	
	3.	56	.7	
	4.	61	.6	
	5.	61	.5	
	8.30	56	.4	Convulsive movements.
	10.	47	.5	
	10.30	27	1.6	
	11.10	31	1.0	
	11.30	19	1.2	
	12.00	22	.8	
	12.30	28	.3	
	14.30	63	.2	
	15.	58	.3	
	16.	63	.2	Convulsive movements.
	17.	} Too feeble to count.		
	18.			
	19.			

Death.

In the foregoing experiment a full-grown etherized rabbit was used, and, the left carotid being connected with the kymographion, one sixth of a grain of dry *Heloderma* venom, dissolved in one cc. of distilled water, was injected into the external jugular vein.

Experiment III.—The following experiment was made on a full-grown rabbit in which the pneumogastric nerves were cut, and in which the same dose and method of injection were used, the object being to determine if the above nerves were in any way connected with the changes in the circulation observed in the preceding experiments.

Action on the Arterial Pressure.

	TIME. Min. Sec.	PRESSURE. Mm.	REMARKS.
Normal.....		80	
Injection.....	.0		
	.8	66	
	.15	52	
	.30	56	Convulsive movements.
	.40	60	" "
	.50	42	" " stopped.
	1.	34	
	.10	28	" "
	.30	24	" "
	.35	30	Violent convulsions followed by death in 30 seconds. During these convulsions the cannula became detached from the artery.

Death in 1 min. 35 sec.

Action on the Pulse.

	TIME. Min. Sec.	PULSE in 19 sec.	PULSE CURVES. Mm.	REMARKS.
Normal.....		46	.6	During the last half of the
Injection.....	.0			first minute, and after,
	.15	47	.8	the tracing was so irregu-
	.30	44	1.0	lar on account of the con-
	1.00	52	.3	vulsive movements that
	1.30			the pulse could not be
	1.35			Violent convulsions. accurately counted.

The animal died in convulsions with dilated pupils.

The results were identical with those obtained when the pneumogastrics were entire, so that the effect on the heart is direct, and not by inhibition through the pneumogastrics.

The results of the autopsy in both of the above experiments are identical, and may be summed up as follows:

Autopsy, made immediately after Death.—Heart arrested in diastole; heart does not react to induction currents; muscles everywhere respond to electric stimulation; motor nerves intact; cord unirritable, and will not respond to the strongest current produced by one large gravity cell, with Du Bois-Reymond's induction coil; bowels still irritable; peristaltic movements occur spontaneously; the intestines are natural in color, as are all other organs. After five minutes the heart began to contract, and was finally found in a systolic condition. The interior of the organ was full of black clots, especially the auricles, the left ventricle containing but a very small clot.

In order still further to determine the effect on the heart, the following experiments were made:

Experiment IV.—

hrs. min.

7.33. Pithed a frog and exposed the heart.

.52. Heart beats 21 in 30 seconds.

.52½. Placed a small portion of dried venom of *Heloderma* on the heart.

.56. Heart beats 20 in 30 seconds.

8.05. " " 19 " "

.18. " " 18 " "

.30. " " 15 " "

.43. " " 14 " "

.55. " " 10 " "

9.30. " " ceased.

Experiment V.—

hrs. min.

8.05. Took two "cut-out" hearts of frogs, and placed them in a normal salt solution in separate vessels, just sufficient liquid being used to cover the hearts. On one heart was placed a small quantity of dried venom.

.27. The poisoned heart beats more feebly than the other.

.30. The poisoned heart beats still more feebly than the other, which is yet firm.

.45. The poisoned heart stopped beating, the other beats firmly.

.55. The poisoned heart stopped beating, the other beats firmly, but slower.

Experiment VI.—

hrs. min.

3.45. Exposed the hearts of two pithed frogs.

4.00. Placed on one some dried venom.

.30. The poisoned heart beats are decidedly feebler than the other.

.50. The poisoned heart beats more feebly; the unpoisoned heart beats firmly and apparently in a normal manner.

6.00. The poisoned heart beats very feebly and does not fill with blood. The normal heart beats firmly, and fills well with blood at each beat, making a striking contrast with the poisoned heart.

We may conclude that—

The poison of *Heloderma* causes no local injury.

That it arrests the heart in diastole, and that the organ afterward contracts slowly—possibly in rapid rigor mortis.

That the cardiac muscle loses its irritability to stimuli at the time it ceases to beat.

That the other muscles and the nerves respond readily to irritants.

That the spinal cord has its power annihilated abruptly, and refuses to respond to the most powerful electrical currents.

This interesting and virulent heart poison contrasts strongly with the venoms of serpents, since they give rise to local hæmorrhages, and cause death chiefly through failure of the respiration, and not by the heart, unless given in overwhelming doses.

They lower muscle and nerve reactions, especially those of the respiratory apparatus, but do not, as a rule, cause extreme and abrupt loss of spinal power.

Finally, they give rise to a wide range of secondary pathological appearances, which are absent from *Heloderma* poisoning.

There remains on our minds no doubt as to the fact that the fluid which drips from the mouth of *Heloderma* when it bites is a very active poison. The present study is, however, limited in range, and we can not yet feel sure that the fluid in question comes from the glands now presumed, from their relation to the teeth, to be poisonous.

The briefest examination of the lizard's anatomy makes clear why it has been with reason suspected to be poisonous, and why it poisons with so much difficulty. Unless the teeth are entire, the poison abundant, and the teeth buried in the bitten flesh so as to force it down into contact with the ducts where they open at the crown of the teeth, it is hard to see how even a drop of poison could be forced into the wounds. Yet it is certain that small animals may die from the bite, and this may be due to the extraordinary activity of the poison, and to the lizard's habit of tenaciously holding fast to what it bites, so as to allow time for a certain amount of absorption.

It is plain enough that a lizard as small as the one exhibited would be very unlikely to inflict a wound fatal to man; but it is possible that the larger animal—and it is said to reach a length of three feet—might prove a more efficient poisoner.

We are unwilling to drop the subject without a few words as to the nature of this poison.

The recent researches of Dr. Sternberg and Professor Gautier have shown that human saliva may kill a rabbit in twenty-four hours, and a pigeon in a few hours, if a quantity of saliva has been concentrated by heat and so used. Professor Gautier thinks the saliva and all venoms owe, at least, a part of their power to normal ptomaines or animal alkaloids, the products of putrefactive processes, and recalls to us the fact that most secretions are measurably poisonous.

The answer to these views we shall have to consider elsewhere, and at length, but it will be sufficient here to say that there is no resemblance between the symptoms caused by the known ptomaines and those produced by any of the venoms. When it was shown that healthy human saliva was competent to kill, it was natural enough to leap to the conclusion that the venoms were merely concentrated salivas. The analogy ends with the fact that both may cause death, but the one may kill in twenty seconds, and the other requires, at the least, many hours, while also it seems, as regards saliva, to be, in some degree, a question of the toxic activity of certain individuals, not all being so uncomfortably endowed as Dr. Sternberg himself.

NEW YORK ACADEMY OF MEDICINE.

A STATED meeting was held April 19, 1883, FORDYCE BARKER, M. D., LL. D., President, in the chair.

CRYSTALLINE ELATERIN.—Dr. Gaspar Griswold read a short paper on this subject, which will be found on page 514.

ANTEFLEXION OF THE UTERUS; ITS ETIOLOGY AND ASSOCIATED PATHOLOGICAL CONDITIONS.—Dr. W. Gill Wylie read a paper with this title.

The uterus, he remarked, is somewhat flexible and elastic, and when pressure is made on the fundus it bends, chiefly at a

point a little below its middle and opposite the os internum—not sharply, but in a parabolic curve. It is held suspended nearly in the center of the pelvic cavity, the axis of which crosses the long axis of the uterus just below its middle, the center of the cervix being somewhat posterior, and that of the fundus a little anterior to the axis of the pelvis. The top of the fundus is somewhat below the brim of the pelvis, and the cervix is below and behind the center of the pelvic cavity, the organ being held in position chiefly by the utero-sacral, the utero-vesical, and the broad or lateral ligaments, all of which are somewhat elastic, and permit considerable mobility of the uterus, especially upward and downward and backward and forward. The ligaments are attached to the uterus below its middle, except the broad ligaments, which cover it anteriorly and posteriorly and project from its sides, being attached to the pelvis in such a way as to give the uterus a forward inclination, and the round ligaments, which tend to prevent extreme backward displacement.

The vast quantity and disposition of connective or cellular tissue strengthen the pelvic floor, and assists in retaining the uterus in position, while they also permit free motion and power of adaptability of all the pelvic contents. The elastic contractility of the muscles and connective tissues together exerts a pressure which may be termed the vital musculo-connective-tissue pressure.

The Dynamics of the Pelvic Cavity, or the Influence of Forces in causing Anteflexion.—Atmospheric pressure has little to do with keeping the pelvic organs in place. For this force to act as a retentive power by counteracting gravity, the vessel must be rigid and fixed above as well as on the sides, and impermeable to air. It helps to retain, by opposing gravity, only the liver and stomach, and these only when the diaphragm and ribs are made rigid by muscular contraction, as in holding the breath. It does not act on the pelvic organs in the same way, because the abdominal walls can be made rigid only by the downward action of the diaphragm, and thus the action is downward, and tends to drive out, instead of retaining, the organs in place by the removal of downward pressure. Gravity acts upon the contents of the pelvis as it does upon the semi-solid movable contents of a rigid cylinder with a flexible bottom and opening at the top into a flexible cylinder filled with an elastic mass, which falls and rises at all times with more or less force. What is it that prevents a normal uterus from bending forward at or above its middle when the person stands erect, or when the organ is pressed upon by the action of the diaphragm, the abdominal muscles, etc.? 1st. The firm and elastic nature of the tissues of the uterus permits motion, but tends to keep it in its normal shape. 2d. The forward inclination and slight anterior curvature of the normal uterus put it in the best possible position to enable it to withstand both continued and sudden waves of force from the action of the diaphragm and the abdominal muscles. In the erect posture, the pelvis of a normally formed woman is carried backward, so that a plumb-line dropped from the front of the first or second lumbar vertebra would pass through or in front of the os pubis. The erect posture curves the central part of the spine forward and carries the sacrum and coccyx backward, and thus renders the floor of the pelvis firmer than when the abdominal muscles are relaxed and the spine is straightened, as in the squatting and reclining postures. Postures which relax the abdominal walls also relax the floor of the pelvis, and those which render the abdominal walls tense tighten the pelvic floor. The wave of motion caused by the diaphragm passes downward through the mass of intestines, and, as they are attached posteriorly, is deflected forward against the abdominal wall, whence it is deflected backward and downward into the pelvis, and is much modified in force before

it reaches the uterus. If the long axis of the uterus is perpendicular to the plane of the pelvic brim, or somewhat anterior to the pelvic axis, the deflected and modified wave would strike and glide over the very top of the fundus, and spend its force on the floor of the pelvis. Blows upon or force produced by sudden contraction of the abdominal walls would pass backward and be received in the same way. Old men who have difficulty in urinating bend forward, not only to relax the perinæum and pelvic floor, but to carry the abdominal wall backward, and, by voluntary contraction, cause a direct transmission of the wave from the diaphragm on to the bladder. For the same reason, when straining at stool, one leans very much forward in order to direct this force backward on the rectum.

Postures which tend to make the abdominal and pelvic cavities continuous may be injurious by bringing the uterus directly under the diaphragm. So long as the uterus retains its normal relations to the pelvic brim, it is in the best possible position to receive waves of force coming into the pelvis; for, as the pelvis is tilted up, the uterus is also lifted, and, when the brim of the pelvis is directly under the diaphragm, the long axis of the uterus is directed against the downward motion; besides, when sitting at ease, as the free borders of the ribs approach the pelvis, the abdominal wall relaxes and serves to dissipate the force of the diaphragm which is expended on the walls anterior to the pubes. As the spine is straightened, the pelvic floor is relaxed and the mobility of the organs much increased, and for this reason a patient can be best examined on her back with the legs flexed on a flat table. Work requiring rigidity of the body and tension of the abdominal muscles, such as running a sewing machine, with the body inclined forward, may be very injurious.

The Vital Musculo-Connective-Tissue Pressure.—By this is meant the sustaining power of the surrounding flexible, elastic, and adjustable tissues, which during life are filled with blood-fluid, etc., and are kept closely packed by the blood-pressure and the elastic contractility of the skin, muscles, fascia, and connective tissues of which the pelvic floor and abdominal walls are composed. This force is always more or less active, and, when the abdominal muscles are tense, is one of great power, not only keeping the organs in place, but regulating the pressure of the blood-vessels and the intestines. It is the removal of this power and the consequent disturbance to the circulation which produces the shock so often observed when the abdomen is opened. In the erect posture, the abdominal and perineal muscles are tense, and counteract the downward force of gravity by bringing their sustaining forces into full play. This influence is of great importance in the question of the dynamics of the pelvic cavity. In studying the influence of indirect pressure, the pelvis must be regarded as a cylinder, with an elastic top and bottom, filled with fluid, or a mass of tissue filled with blood, etc., and so elastic and mobile as to transmit force and be subject to the same laws which govern fluids. Therefore, when the floor of the pelvis is tense, force from above is transmitted more or less equally to all parts of the pelvis. While the uterus is surrounded by these elastic, adjustable tissues, it is sustained in the same way as a flexible sea-weed floating in water. In other words, the fundus is not so prone to fall forward as it would be out of the pelvis. The effects of falls and sudden efforts in producing ante flexion have been exaggerated by advocates of the mechanical pathology of uterine displacements, who have overlooked this influence which greatly modifies the action of indirect forces on the pelvic organs.

Downward pressure, when very sudden, as in the act of coughing, would for a moment flex the uterus, but its natural elasticity and that of the surrounding tissues would cause it to rebound and assume its normal degree of curvature, and this

would be the case even though the pressure were continuous, as in lifting, straining, or lacing. General prolapse rather than ante flexion is apt to be produced by downward pressure on the healthy uterus. Downward pressure from the abdominal muscles tends to produce, first, an exaggeration of the normal anterior curvature of the uterus; yet, as a rule, in the otherwise normal uterus, prolapse beyond a certain extent will produce retroversion, for, after a limited amount of descent, the cervix is forced forward by contact with the curved tissues behind it, and, unless it bends, which it is not likely to do if normal, the fundus must go backward. Backward displacements are of much greater importance, pathologically, than anterior displacements, because the degree of rotation of the uterine axis from its normal position is so much greater, the broadside of the organ receives downward pressure with more direct and greater force, the circulation is interfered with to a greater extent, and the uterus is abnormally fixed in the pelvis, its mobility is in a great measure lost, and the normal action of the vital musculo-connective-tissue pressure is much diminished.

Influence of the Bladder on the Position of the Uterus.—The bladder is a soft and very elastic organ, and, except at its base, free to move in all directions, so far as its attachments are concerned. Except when considerably distended, it has little or no influence in changing either the shape or position of the uterus. When distended, it carries the uterus backward, and tends to straighten out any anterior curvature. Partly filled, it makes up a part of the flexible, adjustable mass that surrounds and supports the fundus uteri. The elastic abdominal walls compensate by contraction or distension for any loss or gain in the pelvic contents.

The Influence of the Rectum on the Uterus.—The rectum is also a movable elastic body, which, when distended, pushes the cervix uteri to one side, and, if not habitually distended, has but little influence on a normal uterus. When habitually distended at its lower part, it greatly interferes with the normal circulation in the pelvis, and by distension and pressure stretches the pelvic fascia and uterine ligaments to such an extent that more or less prolapse of the uterus occurs, and, when the uterus is soft, flexes the cervix. An impacted rectum is nearly always associated with voluntary straining at stool, which, with the existing tendency to prolapse, will invariably induce ante flexion, or more frequently retroversion and retro flexion.

The Point of the Greatest Curvature in Ante flexion.—It is often difficult to determine the exact location of the greatest curvature in an ante flexed uterus. As a rule, it is just about the os internum, because at this point the uterus is slightly smaller than at any other. The cervix and body unite at this situation; here the large blood-vessels enter and pass from the uterus and tend to weaken its walls, and just above the os internum the uterus is free, while the cervix below it is fixed by the utero-vesical and utero-sacral ligaments. When the vaginal part of the cervix is abnormally long, or large and soft, the flexion may be found at the vaginal junction. Flexion of the body or a caving in of one cornu is the result of local atrophy or extreme dilatation and thinning of the uterine walls.

Time of Making an Examination.—This should be carefully considered, for the amount of curvature will doubtless vary at different times—for instance, just before and just after menstruation. The best time would be during one or two weeks between the menses, when the uterus is usually quiet. If the uterus is an erectile organ, erotic excitement might tend to straighten it. If the function ascribed to the round ligaments by some authorities be correct, the uterus would be displaced forward during erection. Special conditions of the nervous system would probably have some effect on the shape of the uterus; as, for instance, when influenced by fear or intense mental excitement

it may be shriveled up, as the penis of a youth is when he is being examined the first time for venereal disease.

Variability of the Generative Organs.—The features of the external organs of generation vary in different races and individuals, and this normal variability characterizes the internal organs as well; and for this reason we can not lay down the law as to what will be the exact curve of the uterus, and, when the organ is found not to be of the exact size and shape of an absolutely perfectly formed uterus, it is not a sufficient reason for pronouncing it a case of pathological curvature to be treated by artificial support.

Frequency and Degree of Antelexion.—In a large percentage of the multiparous women whom the gynecologist examines, the uterus is abnormally flexed, but, in deciding what the normal curvature is, it must be remembered that nearly all of these women apply for examination because they have uterine disease, and the condition of their uteri can not fairly be used in estimating the normal standard. The angle made by the junction of two lines—drawn, one in the direction of the axis of the cervical canal, and the other in that of the canal of the body—might vary from an angle of 165° to 135° without being an abnormal curvature, but, if less than 135° , it may fairly be called abnormal.

Etiology.—The prevalence of imperfectly developed antelexed uteri in a community may be one of the first indications of race degeneration. The functions of the generative organs are not essential to the life of the individual. This full and proper development would seem to depend upon a surplus of vitality. In civilized communities the functions of these organs are kept under restraint; that is, women marry late in life, and, when this is the case for several generations, this enforced restraint (disease) of an organ may have a decided influence toward causing degeneration and atrophy. In a woman with a deformed pelvis, or in other respects showing imperfect development, we usually find an abnormally small antelexed uterus. Sometimes this is the case in strong and vigorous women. The condition of the general health has much influence on the development and position of the uterus. A rheumatic diathesis, or a tendency to catarrhal disease when the individual is exposed to cold or malarial poison, may induce endometritis, and finally lead to anterior displacement. Other causes may predispose to or induce anterior displacement, such as getting up too soon after labor, subinvolution of the uterus or its ligaments, uneven or unequal involution, specific elytritis extending to the endometrium, inflammation extending to the parametrium, especially pelvic peritonitis, imperfect development of the vagina, abnormal development of the cervix, habitual constipation, etc. Most of the local pain in this affection is due to congestion produced by the upright position, and to the general prolapse of all the pelvic organs.

Pathology.—In the congenital type, or in cases in which the flexion was acquired before maturity, the mucous lining at the point of curvature is usually pale and degenerated, with thick, hard, and fibrous, rather than muscular walls. In other cases the muscular tissue is scant, and the walls are composed of soft and flexible connective tissue, or indurated and giving evidence of old inflammation of the connective tissue. The os internum is usually contracted and inelastic, the contraction being due to organic rather than mechanical causes. If the cavity above is dilated, the os internum is found constricted.

Antelexions may be divided into two classes—those which are usually termed congenital, and those in which the curvature takes place after full development. In the former, due to or complicated with imperfect development, both the fundus and cervix are frequently bent forward. The vaginal portion of the cervix is usually hard, abnormally small, flattened, and some-

what pointed, with the anterior lip crowded forward a little in advance of the posterior lip, giving the cervix a snout-like appearance.

In the latter class the cervix may not be much changed from the normal position and shape, while that part above the vaginal junction, or the part that is bent, is relatively small, flexible, and sometimes elongated so much that the round and small fundus can be moved about in any direction. When the cervix is bent forward in this class of cases, it is usually enlarged and hard, with more or less discoloration, due to imperfect circulation, and the flexion is more decided and fixed than in the simple cases when the cervix is not displaced.

[The Academy then proceeded to a consideration of certain resolutions introduced by Dr. Austin Flint, Jr., an account of which was given in our issue of April 28th, p. 462.]

NEW YORK OBSTETRICAL SOCIETY.

A STATED meeting was held February 20, 1883, Dr. CHARLES C. LEE, President, in the chair.

SOME OF THE EFFECTS OF NASAL POLYPI IN CHILDREN.—Dr. A. JACOB narrated two cases, an account of which was given in the journal for April 7th, p. 376.

LARGE FIBROID TUMOR OF THE UTERUS UNACCOMPANIED BY SYMPTOMS.—Dr. B. F. DAWSON mentioned the case of a lady, thirty-two years of age, who recently consulted him, by the advice of Dr. J. H. Mennen, with regard to an enlargement in the abdomen that had attracted the notice of her friends only a few weeks previously. The patient was in excellent health, and had suffered no pain whatever; menstruation was perfectly normal. On examination, Dr. Dawson found a large multiple fibroid tumor of the uterus, occupying nearly the entire pelvic cavity, and pressing so tightly against the pubes that it was almost impossible to introduce the finger between. The case was somewhat unique in that the patient had been carrying a tumor of such large size without suffering any symptoms and in entire ignorance of its presence. The President had seen the case with him.

The PRESIDENT confirmed the statements made by Dr. Dawson with regard to this case, and stated that the probable explanation of the absence of symptoms was that the growth must have originated in the fundus, and developed upward and in directions not to cause such pressure upon the pelvic organs as would give rise to pain or other symptoms. By the time it had increased sufficiently in size and weight to occupy the pelvic cavity so fully as it did at present, the neighboring organs had become tolerant of its presence. He thought the case was an instructive one to gynecologists, in warning them against indiscriminately urging interference in cases of uterine growths, a tendency which, in the light of the brilliant success attending Battey's, Hegar's, and Tait's operations for the removal of the uterine appendages in cases of solid tumors of the uterus, was liable to occur for the next few years.

Dr. BACHE McE. EMMET replied to a question by Dr. Dawson with regard to what circumstances would justify an operation for the removal of such a tumor, that, in his opinion, an operation would not be justifiable except the patient's life was being rendered miserable and was jeopardized by the presence of the tumor.

DERMOID CYST OF BOTH OVARIES, AND CYSTIC TUMOR OF THE BROAD LIGAMENT.—Dr. W. T. LUSK presented two dermoid cysts, one of which had occupied the right and the other the left ovary, and also an unpunctured cyst of the right broad ligament, all removed from the same patient about two months ago. The patient made an excellent recovery.

Dr. GILLETTE stated that he could almost duplicate the speci-

men in one of its features. He had recently removed a cyst of the broad ligament in a girl about fourteen years old, when just such a cyst as the one shown was in progress of formation. It was secondary to the main cyst. The patient recovered.

In reply to a question by the President, Dr. H. D. NICOLL said that Dr. Thomas had operated on one patient with dermoid cyst of either ovary.

Dr. EMMET remarked that two years ago he reported a case of dermoid cyst of both ovaries.

HENRY J. GARRIGUES, M. D.,

B. F. DAWSON, M. D.,

FRANK P. FOSTER, M. D., *ex officio*,
Committee on Publication.

Reports on the Progress of Medicine.

QUARTERLY REPORT ON SURGERY.

No. XIV.

By CHARLES B. KELSEY, M. D.,

SURGEON TO ST. PAUL'S INFIRMARY FOR DISEASES OF THE RECTUM.

ON THE TREATMENT OF CANCER OF THE RECTUM.—Mr. A. E. Barker ("Lancet," Feb. 24, Mar. 3, 1883) points out the different indications for treatment of cancer of the rectum as illustrated by a group of eight cases, in five of which he chose colotomy, in one excision, and in two no surgical interference.

The disease in seven out of the eight cases appeared, after careful manual examination and from the clinical history, to be the usual form of cancer met with in the rectum, which the author thinks is better described by the name of columnar epithelioma than adenoid. In one instance where excision was performed, the structure was proved by the microscope. In another the growth may have been encephaloid. In all but one the growth was seated fully three inches from the anus when first examined, and involved the whole circumference of the bowel; in one (in a male) it was limited to the postero-lateral aspect of the gut; in all the anus was free, and in none was there any glandular involvement or secondary deposit. In seven the family history was against heredity.

Blood in the motions was in four cases the first thing noticed, and was present, sooner or later, in all. Difficulty in defecation or diarrhœa was the next marked symptom, and after this bearing-down pain. Three of the patients suffered comparatively little from continuous pain, only complaining of a little during motions. Pain down the thighs was marked in two cases. In the more advanced cases diarrhœa (twenty passages daily) was a prominent feature.

The clinical factors upon which the author decided for or against operation were as follows: In Case 1 the growth had opened up the vagina, and the resulting incontinence of fœces of the most revolting kind, together with the distress from the passage of the motions over the ulcerated surface of the cancer, fully justified the hope that an artificial anus in the loin would give relief. In Case 2 excision was justified by the malignancy of the growth, the suffering caused at each motion, and by its limitation and accessibility. In Cases 3 and 4 the growth was very chronic and bulky, and was causing obstruction alternating with profuse diarrhœa. Ulceration and perforation of the bowel above the stricture were, therefore, to be feared if a free exit for the motions was not immediately provided. In cases 5 and 6 the operation was almost entirely on account of severe pain, with diarrhœa, other troubles being less prominent. Morphine

produced constipation, and in this way rather aggravated than relieved the trouble. Finally, it was hoped that relief of the new growths from the irritation of defecation might retard their progress. In Case 7 the condition was not one that called for any active interference; and in Case 8, also, there was but little distress as yet, and, as the patient could command the best advice and any diet, the fœces could be kept in a condition to pass readily through the contracted bowel, so that the patient, though seventy-seven years old, enjoyed very good health.

In five cases colotomy in the left flank was performed by Amussat's incision, in one excision. The wounds were in every instance guarded against septic contamination during the operation by frequent sponging with carbolic solution, especially after opening the gut. The subsequent dressing consisted of carbolic oil on lint, covered with a pad of salicylated wool. All the colotomy wounds healed rapidly, almost completely by first intention, except in one case, where, as the healing was rather too rapid, some of the fresh union was broken down to allow a little wider opening to the gut. Inflation of the bowel from the rectum was practiced in all the cases of colotomy, and the finding of the bowel was much facilitated thereby. In one case the peritonæum was wounded, but without bad consequences, as the wound was kept aseptic, and the opening of the bowel deferred until the fifth day after the latter had been stitched by its muscular coat only to the skin. Those cases did best in which the mucous membrane was most carefully sewn to the cut surface of the skin.

ON THE CURE OF ABSCESSSES ABOUT THE NECK WITHOUT CICA-TRIX OR OTHER DEFORMITY.—Mr. F. J. B. Quinlan ("Lancet," Jan. 20, 1883) has in two cases adopted an ingenious method of draining abscesses about the neck, which has resulted in a cure without deformity. It consists simply in passing a wire seton through the abscess cavity, and allowing the pus to escape gradually, and subsequently using compresses to facilitate the closure of the sac. The cicatrices left by the wire were in each case of about the size of the head of a pin, and scarcely noticeable. The needle is a thin, curved one, about three inches long, and the wire is fine and of silver.

The great point in the operation is to introduce the little silver seton immediately after suppuration has commenced, and while the pus is at least half an inch from the external surface. If it be allowed to come nearer, absorption of the areolar tissue will occur, and will leave a hollow over the site of the abscess. If nearer still, the true skin may be injured, and then there will be, in addition to the hollow, a red mark, which will last a long time. The needle is best introduced with a needle-holder, as otherwise it is difficult to pass it to sufficient depth. There should be no poulticing or application of stupes.

ROUGE'S OPERATION IN CASES OF DISEASE OF THE NASAL FOSSÆ.—Mr. Clement Lucas ("Lancet," Jan. 20, 1883), after some interesting data concerning Rouge's operation and Lawrence's modification of it, reports a case in which it was twice performed by himself on a patient suffering from syphilitic ozæna. The operation was first described by Rouge in 1873 ("Nouvelle méthode pour le traitement chirurgical de l'ozène"), and consists in dissecting up the upper lip and the nose to allow of free access to the nasal fossæ. This is in reality a modification of an operation previously suggested and practiced by Lawrence ("Med. Times and Gaz.," Nov. 8, 1862), which consists in turning up the nose alone, after separating it from the rest of the face by incisions, commencing externally at the lachrymal sac and extending down to the margin of the alæ, dividing also the cartilages and the septum.

Although some objection has been made to these operations by the few surgeons who have practiced them, on account of the danger of the inhalation of blood, the author thinks well of

them both, but particularly of Rouge's, which allows of the free escape of blood anteriorly. The bleeding through the posterior nares, which is an element of danger, he controls by packing a large sponge, with a string attached, into the upper part of the pharynx. This latter precaution also prevents the patient from expelling blood and foul discharges into the face of the operator. The operation is particularly indicated for the removal of polypi and necrosed bone, and may even be undertaken as an exploratory procedure in cases of doubtful nature.

A CASE OF REDUCTION OF A DISLOCATION OF THE HIP BY INCISION INTO THE CAPSULAR LIGAMENT.—Dr. Polaillon ("Bull. gén. de thérapeutique," March 15, 1883) records a case of this exceedingly rare surgical procedure, and states that it is the third attempt of the kind on record, the first one being by Volkmann in 1876 ("Berlin. klin. Woch.," No. 25, p. 357, 1877), and the second by MacCormac in 1878. In both of these cases reduction failed, and the operation was completed by resection of the upper end of the femur, the patients recovering. In the author's case reduction was accomplished, but the patient died of gangrene. The case was an exceedingly poor one for surgical interference, the man being a drunkard, with the usual visceral changes caused by alcohol.

The operation was performed antiseptically. The cutaneous incision was 10 cm. long, starting from the anterior inferior spine. The muscles and fascia were incised to the same extent, thus exposing the joint. The great trochanter was found to be fixed against the cotyloid cavity, the upper border of which was masked by a thick layer of fibrous tissue, which extended from the upper border of the neck of the femur to the superior border of the cotyloid notch. This anterior thickened portion of the capsular ligament (the Y-ligament) was divided with the knife, and the finger could be passed between the neck of the femur and the cotyloid cavity, which was free. In spite of this division, an attempt at reduction by manipulation failed, and it was necessary to divide the muscles in front of the joint at their insertion. Further manipulation then brought the head of the bone out of the foramen ovale into a position over the cotyloid cavity, and thence the reduction was accomplished. No artery was wounded during the operation, which lasted three quarters of an hour, and the wound was dressed antiseptically. Four days after, the patient succumbed to a gangrenous inflammation of the deep femoral region. On autopsy, the head of the femur was found in the acetabulum. The author thinks that, in consideration of the patient's bad general condition, the death could not properly be attributed to the surgical interference, the operation being neither very long nor very severe.

Volkmann made in his case a long longitudinal incision, starting from the crest of the ilium and passing over the great trochanter. MacCormac made a Y-shaped incision, involving a great part of the femoral region.

ON THE TREATMENT OF CERTAIN FRACTURES OF THE LOWER END OF THE FEMUR.—Mr. F. Treves ("Brit. Med. Jour.," Feb. 17, 1883) records three important cases in which he has practiced division of the tendo Achillis as a primary step in the treatment of fracture of the lower end of the femur. It is in relation to this class of fractures that Bryant says: "In fractures of the lower third, above the condyles, where the gastrocnemii muscles tend to draw the lower fragments backward into the popliteal space, some surgeons prefer the use of the inclined plane, and, where the bones can not be otherwise kept in apposition, it is, probably, a sound practice. But what I believe will turn out to be a better one is the division of the tendo Achillis and the use of the long splint. . . . I have taught this for the last twelve years, but have had only one opportunity for testing its value."

The fractures referred to are generally either just above the

condyles, or are through the shaft just above that point. The fracture may be transverse or oblique; usually, however, of the latter variety; and the obliquity is apt to be extreme, with its general direction from behind downward and forward. The position of the upper fragment is practically unaffected, while the upper end of the lower fragment is drawn forcibly backward into the popliteal space by the action of the gastrocnemii muscles. The lower fragment is also drawn upward, and, from the twofold displacement, it follows that it may cross the axis of the upper fragment at a considerable angle while it lies behind that portion of bone. These fractures are often associated with secondary vertical ones through the condyles into the joint.

All fractures in this part are not attended by this deformity, and the treatment referred to is only recommended for those in which the lower fragment is forcibly drawn into the popliteal space by the gastrocnemii. It is obvious that these cases can not be treated in the ordinary way. Extension in the long axis of the limb merely increases the deformity by dragging upon the gastrocnemius and the lower fragment. In this way, with a long splint it would be possible for the limb to be put up apparently straight while the knee joint was in reality considerably flexed. It is useless to try and act upon the small lower fragments by pads and pressure, and, therefore, the long splint has been pretty generally abandoned in favor of the only other available treatment—viz., by some form of the double-inclined plane. By this the knee is bent and the large upper fragment is brought to the lower one; the parts can be well fixed to the splints, and the weight of the trunk is made use of as an extending force. In applying this treatment, the actual double-inclined plane is seldom made use of, but some modification of it, as MacIntyre's splint bent at the knee and slung from a cradle, Nathan Smith's anterior wire splint, Hodgen's suspension splint, and the like; in all of which the knee is bent, the parts below the fracture are practically fixed, and the weight of the body acts as an extending force. The objections to this form of treatment are found in the fact that the patient's body and the parts above the fracture are not fixed, and an undue freedom of motion in the upper fragment is possible; and also that the joint is fixed in a flexed position, and is liable to become ankylosed so. By section of the tendon, any deformity produced by the gastrocnemii muscles may be entirely removed, and the fracture may be treated with all those advantages which pertain to the long splint.

The author's three cases are related in full, and in two of them the local result was examined and noted post mortem.

DIGITAL EXPLORATION OF THE BLADDER.—Sir Henry Thompson ("Lancet," Feb. 10, 1883) states that during the past two years he has met with thirteen cases of obscure disease of the bladder in which he has thought it expedient to resort to digital exploration. In no less than six of them he has discovered and removed a vesical tumor of considerable size. He employs a limited incision in the perinæum, carried to the membranous urethra only, and sufficing to enable him to carry the index finger to the neck of the bladder, after which, by supra-pubic pressure under complete anæsthesia, the whole of the interior of the bladder may be examined by the finger.

In a previous paper he has stated that this incision has been frequently employed during two centuries for stricture, retention, etc., but that it had not been employed for the purpose of diagnosis as described above; and, moreover, that such an examination became possible only when, by anæsthesia, the power was obtained of completely relaxing the patient's abdominal muscles. He also claims that the incision enables him to remove tumors, when found, which are not removable except by operation.

A full table of all the cases in which he has performed the incision, including those in which he has discovered and removed tumors, is given.

SEQUELÆ OF TRACHEOTOMY OCCURRING AFTER THE CLOSURE OF THE TRACHEAL WOUND.—Dr. ROSS ("Edinburgh Med. Jour.," Mar., 1883) has met with a case in which tracheotomy was performed for the removal of a foreign body from the larynx of a child aged fifteen months, who twenty-two years later came under his care for a diaphragmatic obstruction of the trachea at the point of the previous incision; and this case has led him to go pretty thoroughly into the question of "What becomes of children who have been successfully tracheotomized?" It is known that cicatricial polypiform vegetations are a not infrequent cause of post-tracheotomic stenosis, and Dr. Gigon, of Angoulême, first called attention to this condition. The author gives the bibliography of fourteen such cases. Pathologically, they are similar to the granulation growths which sometimes cause serious respiratory difficulty on the removal of the cannula; but they do not manifest their presence till some days or weeks after the wound has healed. They are small tumors, varying in size from that of a hemp-seed to that of a pea, found growing from the inner surface of the tracheal cicatrix, very often from either angle, but more often from the inferior than the superior.

In addition to these two forms of stenosis, the author gives cases to prove that it is possible for laryngo-tracheal and nervous derangements, such as spasm of the glottis, to occur as late sequelæ of tracheotomy, and he believes that laryngeal phthisis and pulmonary emphysema may be directly referable to a previous tracheotomy. He quotes from Dr. Mougeot the remarkable statement that very few of the children successfully operated on for affections requiring the more or less prolonged retention of the cannula attain their majority. Military surgeons whom he had interrogated for over twenty years on this subject declared that they had never seen a conscript with a typical tracheotomy cicatrix, while between himself and a large number of professional brethren he could obtain knowledge of only six authentic cases of adults who had had the operation performed on them for croup in their childhood, and of these it was probable that two were reported twice. He also states that he had seen three patients who had been successfully operated on die before their twelfth year.

The article closes with hints as to the treatment of each of the sequelæ spoken of, and a valuable bibliography.

[Lack of space compels us to omit the publication of the bibliographical list appended to Dr. Kelsey's Report.]

Letters to the Editor.

REMARKS ON DR. FLINT, JR.'S, STATEMENT.

NEW YORK, May 5, 1883.

To the Editor of the New York Medical Journal:

SIR: The letter of Dr. Austin Flint, Jr., in your issue of to-day, apologizing for the action of the old-code party in packing the meeting of the New York Academy of Medicine on the evening of April 19th, requires one or two words of comment.

One of the fundamental virtues of the British House of Commons is the practice of giving notice of every proposed motion. A member of that body can not ask an important question without notice being duly posted. It is true that such "red tape," as some would call it, is at times embarrassing, and may seem to hinder "progress," but in the long run it does not do so, and rests on the firm basis of ingenuousness and fair play.

That ex-presidents of the Academy may be induced to sign a paper approving of a kind of parliamentary practice the opposite of that alluded to above, and the opposite of that which is right, only shows the extent to which attempts may be carried to defend what is wrong

in times of heated discussion. The history of partisanship shows nothing more clearly than the fact that you may get a large number of highly respectable gentlemen to defend a public act as virtuous from the perpetration of which they would individually turn away with instinctive abhorrence in cooler moments, or if acting separately.

The facts about the Academy meeting are, that a concerted effort was made to pack it, and to carry resolutions ruthlessly, without due notice. That fact is fixed in the history of the Academy, and no amount of signing of explanatory notes by highly respectable gentlemen will change it.

It is much to be regretted that in so-called deliberative bodies parliamentary jugglery, sleight of hand, and gymnastics may be resorted to to carry measures which could not be carried if time were allowed by majorities for minorities to be heard. When we reach a higher plane of culture we shall certainly show a more temperate spirit in advocating and propagating our opinions. The necessity for revising our ethics in the medical profession in this city and State is daily becoming more apparent.

Yours, faithfully,

C. R. AGNEW.

DR. AUSTIN FLINT, JR., AS A HUMORIST.

NEW YORK, May 5, 1883.

To the Editor of the New York Medical Journal:

SIR: It is refreshing to find that so sad a conflict as now exists in the profession, relative to the old and new codes, can be brightened by flashes of humor, as has been successfully demonstrated by Dr. Austin Flint, Jr., in his "Statement" which appears in your issue of this date.

In his first sentence he states: "I can scarcely imagine a provocation sufficient to induce me to enter into a personal controversy in the newspapers." In the "New York Herald" of to-day one may find the same "Statement," and what appears as an editorial preface, in which it is said that Dr. Flint, Jr., "has written a letter, under date of April 28th, to the editor of the 'New York Medical Journal,' which *will* appear in its columns this morning." The word "*will*" is not italicized in the "Herald."

In this communication to the "Herald" the following sentence is included in brackets: "Dr. Flint, Jr., here quotes from an interview with Dr. Fordyce Barker in the 'Herald' of April 21st." If this sentence was written by one of the editorial staff of the "New York Herald," instead of Dr. Flint, Jr., it was undoubtedly an unintentional error, instead of humor, as no report of an interview with me in relation to the old or new code, or any cognate subject, has ever been published in any newspaper.

But the full culmination of the humor of Dr. Flint, Jr., appears in the last sentence but one of his statement, in which he asks you to print from the "New York Herald" of April 21st the passages referred to above, "in order that the profession may form an opinion as to the justifiability of the personalities therein contained"; which you very properly do, including also its sensational headings.

The humor of the request and the reasons assigned are very much in the Artemas Ward vein, and probably were never equaled by him. "An opinion as to the justifiability of the personalities therein contained" was just what the writer of the "Statement" did not wish, or he would have referred to the report of my speech published in your issue of the same date, the accuracy of which report every one who heard the speech will vouch for, and for which I will accept the responsibility, and in which the reasons for the so-called personalities are clearly and distinctly given—instead of asking that a newspaper report, published seven days before, be reprinted, which I never saw before its republication, and which does not contain a single sentence correctly reported which I uttered, or give the slightest indication of the purpose and motive of my remarks.

Yours, truly,

FORDYCE BARKER.

* * As our issue of the 5th inst. was really published on the 4th, we presume that the "Herald" simply followed the ordinary custom of courtesy in using the word "will" in connection with an extract from our columns.

ETHICS AMONG LAWYERS.

NEW YORK, May 7, 1883.

To the Editor of the New York Medical Journal :

SIR: Conversing the other day with a friend of mine, a lawyer of prominence and influence, he remarked that he had been recently consulted by a widow lady of some little means as to an extremely important legal matter which she had in hand. I say consulted, but it never came to that, for the business was already in the hands of another lawyer, whom my friend believed to be a charlatan, and with whom he therefore very properly refused to come into contact. He would not listen to the lady's story, nor hear a word from her about the matter, unless she would first dismiss her former adviser. She protested that she only wanted to know whether the course which was being pursued was the right one. If it was, she was content to let her lawyer go on as he was doing; if not, she desired that a different line of action should be indicated, and for this information she was willing to pay an appropriate fee. She had confidence in her lawyer in the main, as he had done a great deal of business for her in the past to her entire satisfaction, but she felt some solicitude as to the correctness of his judgment in this particular case. My friend, however, with a noble devotion to principle, maintained his ground, and the result was exactly what he foresaw—the lady's fortune was completely wrecked through her lawyer's incompetency.

As he concluded his narrative I could not refrain from congratulating him on the dignity of the course he had pursued, and remarking that he had done as a lawyer simply what our grand old code of ethics enjoins upon us as medical men. It would be well if some of our brethren at the present moment would learn a lesson from this gentleman of what we owe to the profession and to ourselves.

Very truly yours,

BOURBON.

Miscellany.

THE GERMICIDE VALUE OF CERTAIN THERAPEUTIC AGENTS.—In the "American Journal of the Medical Sciences" for April, 1883, Dr. G. M. Sternberg relates a long series of experimental studies as to the germicide value of certain therapeutic agents on various forms of bacterial organisms. In his experiments on the micrococcus of gonorrhœal pus, he found that, in general, those reagents which destroyed the vitality of the micrococcus from pus were destructive of other organisms of the same class; and that their relative value as germicides was not changed when a different micro-organism was used as the test of this value. Moreover, the reagents which were found to be practically valueless as germicides in the first series of experiments—e. g., ferric sulphate, sodium sulphite and hyposulphite, boric acid, etc.—proved to be equally without value when the test was extended to other micro-organisms of the same class. But the reagents found to possess decided germicide power have, in some cases, a different value for different organisms. In other words, the vital resistance of different bacterial organisms to the reagents in question is not the same in all cases. Nevertheless, the comparative germicide value of the reagents tested is the same for the several test-organisms, and, allowing certain limits for specific peculiarities, it is safe to generalize from the experimental data obtained in the practical use of these reagents as disinfectants. But it must be remembered that the resisting power of reproductive spores is far greater than that of bacterial organisms in active growth (multiplication by fission), and the data obtained for the latter can not be extended to include the former. The antiseptic value of the reagents tested depends upon their power to prevent the multiplication of putrefactive bacteria, and this is not necessarily connected with germicide potency.

DEATHS DURING THE ADMINISTRATION OF ANÆSTHETICS.—In a paper entitled "Remarks on the Death-rate of Anæsthesia, with an Account of Six Fatal Cases," published in a recent number of the "British Medical Journal," Mr. W. Roger Williams, F. R. C. S., remarks in con-

clusion: "I have observed that those who administer anæsthetics too often, do so without any fixed principles to guide them. This is regrettable, because, as many of these cases show, the fundamental laws of the anæsthetic art can not be disregarded without entailing a deplorable sacrifice of life. I will here endeavor to state, in the briefest manner possible, the most important practical inferences from them. With regard to chloroform, then, subject to the attainment of the object in view, too much air can not be given during its administration; and, with regard to ether, too little air can not be given during its administration. From this, it follows that a long time is required to induce anæsthesia by chloroform; but, to produce the same result with ether, a short time is sufficient. Now, by a long time I mean about a quarter of an hour, and by a short time about five minutes. Surgeons are not unfrequently to blame in this respect. How often one has heard it said to the chloroformist—'Be as quick as you can; I want to commence the operation in five minutes.' In my opinion, this is equivalent to saying—'Kill at least one per cent. of my patients. Those kind of inhalers are the best which most facilitate the fulfillment of these requirements. For giving chloroform, one with a wire framework, having a diaphragm of flannel, or some similar material stretched over the top of it, on which to evaporate the anæsthetic, but open at the sides, would be very good; but a piece of lint, or the corner of a towel, properly used, would do as well. A graduated drop-bottle is necessary in any case, as only a small quantity of chloroform should be poured on at a time, which requires to be frequently renewed. For the administration of ether, Ormsby's inhaler seems to me to be the best; it was designed to fulfill the requirements just mentioned, and I have found it answer admirably. There is only one other point I will now mention, and that is the importance of watching the respirations during the process. To do so properly, of course the epigastrium must be uncovered. It is of much greater value than feeling the pulse, since, when the latter stops, there is, as a rule, an end of the patient. Mr. Lister has very ably insisted on this. However, I have found it generally neglected at King's College."

IODINE AS A STOMACHIC SEDATIVE.—The employment of iodine for the relief of the vomiting of pregnancy has been somewhat in vogue for a number of years. While the success attending its use has been pointed out with more or less enthusiasm, its exact value has never been established. Dr. T. T. Gaunt ("American Journal of the Medical Sciences," April, 1883) has for a number of years been employing the compound tincture of iodine in drop doses in nearly all forms of emesis, and reports thirteen cases of the most varied character, in all of which vomiting was promptly arrested by the use of this drug.

KAIRINE.—The "College and Clinical Record" remarks that kairine is a recent product of the laboratory which promises to be a useful antipyretic, and, it is stated, is unaccompanied by the slightest tendency to produce local irritation. It is proposed as a substitute for chinoline, itself a substitute for quinine. Fischer and Wilhelm König, of Munich University, assisted by Professor Filehne, of Erlangen, have found that those hydrides of chinoline in which the nitrogen atom is in direct combination with the carbon atom of a methyl group or of another alcohol radical, all possess, more or less, the properties above mentioned as pertaining to kairine. Kairine is the name given by the authors to oxychinoline methylhydride. Kairine hydrochlorate forms a light, grayish-yellow crystalline powder. It is soluble in water, and has a bitter, aromatic taste.

THE ACTION OF CHLORAL, OPIUM, AND BROMIDE OF POTASSIUM.—In an article in the "British Medical Journal," embracing a recital of experimental investigations, Dr. Sidney Ringer and Dr. Harrington Sainsbury make the following important observations on certain well-known drugs, after discussing the physiological effects of the agents mentioned in the title of their paper: "Clinically, the dangers of bromide of potassium and of chloral have been recognized; and thus in our text-books we find the statements that the presence of grave adynamic symptoms contraindicate chloral and bromide of potassium. Opium, on the other hand, in such adynamic states, frequently appears to lend actual support. The results of definite experiment we find to accord with the results of clinical experience; and the value of the former

lies in that they confirm, and by their definiteness must tend to enforce, the teachings of the latter. The choice of a drug is, however, no simple matter; an advantage here may be outweighed by a disadvantage there; and practical men may object that they would gladly give opium, but that the disordered stomach, blunted appetite, inactive liver, and torpid intestines more than outweigh the advantages of opium administration. This clearly is a matter for consideration in the individual case under treatment; and the decision will have to be according as one or other element—asthenia, or derangement of the digestive, etc., powers—is most to be feared. These objections to opium on the one hand, and chloral and bromide of potassium on the other hand, raise the question as to whether, in very many cases, a drug, at present rather extensively used, especially in America—viz., bromide of sodium—might not with advantage be substituted in their place. The salts of sodium generally contrast very markedly with those of potassium; for the chlorides, bromides, and iodides of these two metals, the lowest figure would represent the potassium as ten times as active as the sodium. These precise numbers refer to action on the ventricle of the frog's heart (see "Medico-Chirurgical Transactions," vol. lxx, concerning the action of the salts of potash, soda, and ammonia on the frog's heart), but on all hands the evidence is forthcoming that, while salts of potassium are very poisonous, those of sodium are very slightly so. One of the marked points of contrast between the two sets of salts is to be found in respect of inhibition; potassium salts inhibit the frog's ventricle strongly, sodium salts scarcely at all. Here however, we are considering drugs as to their cardiac effect; and, in respect of this, sodium bromide would rank far ahead of bromide of potassium, chloral, or opium, as to innocuousness. The objections holding for opium would not apply here, for sodium salts are generally very little disturbing to the tissues. With these advantages the general verdict of clinical experience is to the efficacy of bromide of sodium as a hypnotic, and, indeed, as a substitute for bromide of potassium; and, should this position but be maintained, it is clear that bromide of sodium will be in very many cases the sedative above all others to be selected."

THE MECHANICAL THEORY OF STERILITY.—In one of his Gulstonian lectures on sterility ("British Medical Journal"), Dr. Matthews Duncan, of London, says: "The very zeal with which the mechanical theory of sterility has been fostered, and its treatment in many ways pursued, has led to its present decadence, and there is now increased attention paid to other departments of fertility than conception. Especially and justly, the difficulties of naturally starting and healthily continuing pregnancy are brought prominently into view. The mechanical obstruction theory has begun to shrivel, because of the impression produced by the enormous, though inexact, proportion of the failures of the attempts to cure founded on it. Even the ignorant sterile women could see that, if the theory of causation were true, there was an easy and plain theory of cure; and they could also see that the failure of the so-called cure was prejudicial to, if not destructive of, the theory. The importance of the difficulties of pregnancy now brought into prominence will, on account of its great reconditeness, be received with no enthusiasm, such as welcomed the obstruction theory; and the physicians who entertain it can offer no such brilliant prospects of cure to their confiding patients. It is, however, a decided step of progress in a subject of great practical importance."

ESCAPE OF BLOOD FROM THE LACHRYMAL DUCT DURING EPISTAXIS.—Mr. D. Hoadley Gabb, M. R. C. S., of Hastings, writes to the "British Medical Journal": "Mr. S., aged fifty, with mitral disease and albuminuria, sat out one of our recent sunny days and caught a chill, which culminated in an attack of bronchitis and a relaxed state of the fauces and uvula, producing severe spasmodic cough; during one of these paroxysms, epistaxis, from the right nostril especially, came on rather profusely, and I was sent for. There was no difficulty in arresting it by plugging the anterior nares with dry lint. In two or three hours, after a severe cough, the hæmorrhage returned, and a messenger was sent for me, saying the bleeding had come back, and was running out of his nose and eyes; and so I found that the blood had welled up through the right lachrymal duct and was suffusing his eye, so that he

was constantly obliged to wipe it, and the handkerchief was pretty well stained with the blood, and the discharge only ceased when the nose left off. I have never met with the phenomenon before, neither have others to whom I have mentioned it; and so, I think, perhaps it is worth recording."

RENAL INADEQUACY.—In an address on this subject recently delivered before the Metropolitan Counties Branch of the British Medical Association, and published in the "British Medical Journal," Dr. Andrew Clark stated: "There is a certain state of the kidney in which, without any alteration of structure that the eye can detect, it can, nevertheless, not produce a perfectly healthy urine. It is a urine low in density and deficient in solid constituent, principally in urea and its congeners. I call this state renal inadequacy. You may say, 'It seems scarcely wise to introduce a name like that, when probably it is nothing less than an early stage of Bright's disease. Why bring in another name?' I will not say that it is not an early stage of Bright's disease; I do not know. I think it need not necessarily be; but I shall assume that it is, perhaps, a very early stage of Bright's disease. I nevertheless think it of practical value—and we who are here to-night are practical men—to recognize by a distinct name a state which may remain as it is during the whole period of life, which is nevertheless capable of removal, and which, if unnoticed, may lead to serious injury to the patient. Let me explain. The people who have this renal inadequacy are characterized by three things particularly. First and foremost, they are characterized by a curious inability properly to repair damages done to them either by accident or by disease. I have no doubt you as well as I have often been puzzled to know why, in particular cases, they could not repair a common accident; or why, in a disease such as pneumonia, the exuded stuff was not melted and speedily swept away; why a man who had met with some trifling accident in the wrist or shoulder remained suffering from it. Then, they not only repair damages of this kind slowly, but they are peculiarly vulnerable. They are a people, as a rule, who are always catching cold, and who, when they catch cold, come within the category of the first characteristic—namely, that they do not get rid of the cold. They are the people who, without apparent reason, and without other existing disease, get pneumonias, pleurisies, pericarditis, and the like. Then, thirdly—and, I think, almost the most important thing to be noticed about these cases—you can never be sure of the result of the performance of an ordinary surgical operation upon them. It is this class of people, as I had the opportunity a few years ago, in London, of discovering, that die from a simple operation by hæmorrhage. It is this class of people who have an abscess opened and immediately become what is called pyæmic. It is this class of people who, without his being able to explain it, attracted the notice of that distinguished surgeon Sir James Paget. Some years ago he said: 'Whenever I find a man in ill-health, without definite cause for the ill-health, I feel sure that my chances of success in operating upon him are diminished by at least one half.'

NITRITE OF AMYL AND NITRO-GLYCERIN IN URÆMIC ASTHMA.—Dr. Sheen, of Cardiff, furnishes the "British Medical Journal" with brief notes illustrating the value of nitrite of amyl and nitro-glycerin in one of the sudden and distressing, though perhaps rare, phases of chronic Bright's disease—viz., uræmic asthma. "Nitrite of amyl," he continues, "acting probably through the vaso-motor nerves, relaxes the arterioles, and thus reduces blood pressure. As it is very volatile, on the score of economy and convenience, I always carry some of Martindale's capsules in my bag, and these are very handy for immediate use. Nitro-glycerin is said to have much the same action as nitrite of amyl, and, according to Dr. Mahomed, its great superiority over amyl lies in its gradual and more lasting effect, and the more convenient manner of prescribing it, and it can be taken regularly two or three times a day, or oftener, one minim of a one-per-cent. alcoholic solution being the usual commencing dose. It is also made up in chocolate tablets, each containing one one hundredth part of a minim; but its action, when given in this form, is not so rapid as that of the alcoholic solution."

THE BRITISH MEDICAL ASSOCIATION.—The Fifty-first Annual Meeting will be held at Liverpool, on Tuesday, Wednesday, Thursday, and Friday, July 31, August 1, 2, and 3, 1883. *President:* WILLIAM STRANGE,

M. D., Senior Physician to the General Infirmary, Worcester. *President-elect*: A. T. H. WATERS, M. D., F. R. C. P., Physician to the Royal Infirmary, and Professor of Medicine in University College, Liverpool. An Address in Surgery will be delivered by REGINALD HARRISON, F. R. C. S., Surgeon to the Royal Infirmary, Liverpool. An Address in Pathology will be delivered by C. CREIGHTON, M. D., formerly Demonstrator of Anatomy, University, Cambridge.

The business of the Annual Meeting will be conducted in ten sections. SECTION A. MEDICINE.—*President*: John Cameron, M. D. *Vice-Presidents*: Thomas R. Glynn, M. D.; Frederick T. Roberts, M. D. *Secretaries*: Richard Caton, M. D., 18A Abercromby Square, Liverpool; Byrom Bramwell, M. D., 23 Drumsheugh Gardens, Edinburgh. SECTION B. SURGERY.—*President*: Edward R. Bickersteth, F. R. C. S. *Vice-Presidents*: W. Hargreaves Manifold, M. R. C. S.; W. Mitchell Banks, F. R. C. S. *Secretaries*: Rushton Parker, M. B., F. R. C. S., 61 Rodney Street, Liverpool; Edmund Owen, M. B., F. R. C. S., 49 Seymour Street, Portman Square, W. SECTION C. OBSTETRIC MEDICINE.—*President*: W. M. Graily Hewitt, M. D. *Vice-Presidents*: John Wallace, M. D.; David Lloyd Roberts, M. D. *Secretaries*: John E. Burton, L. R. C. P., 64 Rodney Street, Liverpool; W. C. Grigg, M. D., 6 Curzon Street, Mayfair, W. SECTION D. PUBLIC MEDICINE.—*President*: T. P. Teale, M. B., F. R. C. S. *Vice-Presidents*: William Carter, M. D.; W. Honner Fitz-Patrick, M. D. *Secretaries*: F. Pollard, M. D., 52 Rodney Street, Liverpool; George Goldie, M. D., 123 Hyde Park Road, Leeds. SECTION E. ANATOMY AND PHYSIOLOGY.—*President*: Professor E. A. Schäfer, F. R. S. *Vice-Presidents*: William Stirling, M. D.; Richard Norris, M. D. *Secretaries*: James Barr, M. D., 1 St. Domingo Grove, Everton, Liverpool; A. W. Mayo Robson, F. R. C. S., Hillary Place, Leeds. SECTION F. PATHOLOGY.—*President*: T. H. Green, M. D. *Vice-Presidents*: E. H. Dickinson, M. D.; Joseph Coats, M. D. *Secretaries*: Frank Thos. Paul, F. R. C. S., 44 Rodney Street, Liverpool; James F. Goodhart, M. D., 27 Weymouth Street, W. SECTION G. PSYCHOLOGY.—*President*: T. L. Rogers, M. D. *Vice-Presidents*: G. H. Savage, M. D.; D. Yellowlees, M. D. *Secretaries*: G. F. Shuttleworth, M. D., Royal Albert Asylum, Lancaster; W. Julius Mickle, M. D., Grove Hall Asylum, Bow, E. SECTION H. OPHTHALMOLOGY.—*President*: T. Shadford Walker, M. R. C. S. *Vice-Presidents*: E. Nettleship, F. R. C. S.; C. E. Fitzgerald, M. D. *Secretaries*: E. A. Browne, M. R. C. S., 86 Bedford Street, Liverpool; C. E. Glascock, M. D., 23 St. John Street, Manchester. SECTION I. DISEASES OF CHILDREN.—*President*: Samuel Jones Gee, M. D. *Vice-Presidents*: M. G. B. Oxley, M. D.; T. R. Jessop, F. R. C. S. *Secretaries*: H. G. Radon, M. D., 42 Rodney Street, Liverpool; H. Ashby, M. D., 13 St. John Street, Manchester. SECTION J. OTOTOLOGY.—*President*: G. P. Field, M. R. C. S. *Vice-Presidents*: Edward Woakes, M. D.; C. Warden, M. D. *Secretaries*: Thos. Barr, M. D., 10 Albany Place, Sauchiehall Street, Glasgow; R. Williams, L. R. C. P., 82 Rodney Street, Liverpool.

Honorary Local Secretary: Alexander Davidson, M. D., 2 Gambier Terrace, Liverpool. *Honorary Treasurer*: W. Mitchell Banks, F. R. C. S., 28 Rodney Street, Liverpool.

The following order of exercises is announced: TUESDAY, July 31, 1883. 10.30 A. M.—Church Service at Pro-Cathedral. Sermon by Bishop of Liverpool. 12 M.—Meeting of Committee Council. 12.20 P. M.—Meeting of the Council, 1882-'83. 3 P. M.—First General Meeting: Report of Council and other business. Adjourn at 5 P. M. 8.15 P. M.—Adjourned General Meeting: President's Address, and any business adjourned from meeting at 3 o'clock. WEDNESDAY, August 1, 1883. 9.30 A. M.—Meeting of Council, 1883-'84. 11 A. M.—Second General Meeting. Address in Surgery. 1.30 to 5 P. M.—Sectional Meetings. 9 P. M.—*Soirée* in the suite of rooms forming the Arts Gallery, the Picton Reading-Room, and the Free Library, by the President and Local Committee. To this, ladies will be invited. THURSDAY, August 2, 1883. 9 A. M.—Meeting of Committee of Council. 10 A. M. Third General Meeting. Sectional Meetings. Adjourn at 1 P. M. 2 to 5 P. M.—Sectional Meetings. 6.30 P. M.—Public Dinner in the Philharmonic Hall. FRIDAY, August 3, 1883. 10 A. M.—Fourth General Meeting. Address in Pathology. Sectional Meetings. 2 P. M.—Concluding General Meeting. 9 P. M.—*Soirée* by the Mayor of Liverpool, at the Town Hall. To this, ladies will be invited. SATURDAY, August 4, 1883.—Excursions

THE MEDICAL ASSOCIATION OF CENTRAL NEW YORK.—The Sixteenth Annual Meeting will be held at Association Hall, Nos. 55 and 57 East Genesee Street, Syracuse, Tuesday, May 15, 1883, at ten o'clock A. M. A resolution was adopted at the last meeting requesting the secretaries of the county societies in affiliation with the association to forward the names of deceased members in their respective counties to the secretary, on or before the 1st of May and 1st of November, in each year; also that members intending to present papers at the meeting should report their titles to the secretary instead of to the president, as heretofore. Among other subjects of interest, Dr. A. Clifford Mercer will exhibit specimens of bacilli tuberculosis under the microscope.

THE COLLEGE OF PHYSICIANS AND SURGEONS.—The annual commencement exercises will be held at Steinway Hall on Tuesday, the 14th inst., at 3.30 P. M. The Rev. Noah Porter, D. D., President of Yale College, will deliver the address to the graduating class.

THE OBSTETRICAL SOCIETY OF LONDON.—For the information of those of our readers who may visit London during the coming summer, we publish the announcement that the Library of the Obstetrical Society has been removed from No. 291 Regent Street to No. 54 Berners Street, W. The hours of attendance are: Monday to Friday, 1.30 to 6 P. M.; Saturday, 9 to 11 A. M.

THE FREEDMEN'S HOSPITAL.—It seems that certain allegations, lately made public, that the financial affairs of the Freedmen's Hospital at Washington had been managed discredibly, have no adequate foundation in fact. If there were any technical irregularities—and even of this there is no convincing proof—they were such as could not readily have been avoided.

THE NEW PROFESSOR OF SURGERY IN BELLEVUE HOSPITAL MEDICAL COLLEGE.—The "Lancet" speaks as follows of Dr. Frederic S. Dennis, the new Professor of Surgery: "It will be readily believed that, since the resignation of his chair, in December last, by the lamented Van Buren, the question of his successor has been one of the first interest in New York. This honor has fallen on Dr. F. S. Dennis. Though Professor Dennis should think himself fortunate in being elected at a comparatively early age to succeed such a man in such a chair, we have no doubt that he will justify his election. Professor Dennis is, as Van Buren was, a graduate of Yale College. He was a favorite pupil, and at one time an assistant, of Dr. James R. Wood. He was two years in Bellevue Hospital, and in the year of his graduation took the first prize and gained the highest mark in the competitive examination. Dr. Dennis was not content with learning the surgery of his own country, but studied for two years under Langenbeck, and enjoyed very intimate and pleasant relations with the illustrious surgeon of Berlin. We are glad to add that Dr. Dennis spent some time in studying surgery in London, and became a member of the English College of Surgeons. For the last few years Dr. Dennis has been on the staff of Bellevue Hospital, and has done good work as a teacher of anatomy and surgery."

THE TEWKSBURY ALMSHOUSE INQUIRY.—With whatever credit he might have gained with the decent part of the community by unveiling the real abuses that have doubtless prevailed in the management of the Almshouse at Tewksbury, Mass., Governor Butler has contrived to mingle abundant evidence that he is in great part catering to the vulgar appetite for sensational details. For instance, we hear a good deal just now of the "tanning of human skin" for students at the Harvard Medical School, which revolting practice has, of course, nothing to do with the questions at issue.

THE LUNATIC ASYLUM AT NEWARK.—Certain allegations having been made against the managers of the Essex County Lunatic Asylum, at Newark, N. J., embracing charges of maltreatment of patients, and the like, the Board of Freeholders are understood to have declined to make an investigation in regard to them. It now seems likely that the Grand Jury will take the matter up, and more public scandal is to be looked for than if the Freeholders had resolutely gone to work at it in the first instance, however little ground there may have appeared to them to be for such a course.

PUBLIC HEALTH IN CONNECTICUT.—According to a recent report by the secretary of the Connecticut State Board of Health, Dr. C. W. Chamberlain, of Hartford, pneumonia and other acute pulmonary diseases were still playing a leading part in the mortality lists; the prevalence of scarlet fever had declined, although, in common with measles and whooping-cough, it was prevailing rather more than diphtheria; erysipelas was more common than usual; malarial affections were much less frequent than during the preceding year; and "winter diarrhoea" was disappearing.

PRECAUTIONS AGAINST YELLOW FEVER ON THE MEXICAN FRONTIER.—Recent accounts from Texas are to the effect that considerable anxiety is felt there as to the possibility of an outbreak of yellow fever. In accordance with a suggestion from the Chamber of Commerce of Matamoros, Mexico, that, in case a quarantine should be thought necessary, it should be established at Bagdad, instead of at Brownsville, the Governor of Texas has directed the sanitary officers at the latter place to consult with the Mexican authorities.

THE LATE SURGEON-GENERAL BARNES AND THE ARMY MEDICAL MUSEUM.—A general order, issued by the Adjutant-General of the army, announcing the death of Surgeon-General Barnes, which order was published in our issue of April 14th, contained the following statement: "He inaugurated the 'Medical History of the War,' he founded the Medical Museum." Surgeon-General Hammond (retired) having complained that this statement was unjust to himself and to others, the order has been withdrawn, and another has been issued, in which the following words take the place of those quoted above: "Under the fostering care of Edwin M. Stanton, Secretary of War, he accomplished the successful establishment of the Medical History of the War and of the Medical Museum."

SOME POINTS CONNECTED WITH THE LOCAL RECURRENCE OF MALIGNANT DISEASE.—In a recent number of the "Medical Times and Gazette" we find an abstract of a paper on this subject read before the Royal Medical and Chirurgical Society by Mr. Harrison Cripps. He commenced by criticising the view commonly expressed, that local recurrence took place in the cicatrix of the wound, and pointed out that it was rather in the skin and subcutaneous tissue adjacent to the cicatrix that the recurrence was often observed. A paper published by the author in the "Pathological Society's Transactions" of 1881 was referred to, in which microscopic evidence was produced illustrating the view that, as regards malignant disease of the rectum, whether found in the mucous or in the submucous coat of the bowel, it was originally formed of cells derived from Lieberkühn's follicles. A theory founded upon these specimens was also suggested, viz., that the formation of leucocytes was one of the normal functions of the intestinal epithelium. Two cases were narrated in which recurrence of malignant disease undoubtedly first showed itself by cancerous nodules originating in the deeper layer of the cutaneous epithelium by the side of the cicatrix—that is to say, in a part of the skin that had not been removed at the time of operating. After referring to the views of Brodie and other surgeons as to the desirability of removing the entire mammary gland, notwithstanding the cancer may involve only a small portion, Mr. Cripps advised that the same principle should be applied to the superjacent skin. The theory upon which the surgeon advocated the removal of the whole gland-tissue was that, notwithstanding a great portion of it appeared sound, the epithelial lining of the ducts and acini was in reality already affected, and only required time for cancerous growth to become manifest, the epithelium within the gland being in direct continuity with that covering, and the superjacent skin being originally derived from it by involution. Thus the cutaneous epithelial cells lying over the gland were as liable to be implicated as those within it. Mr. Cripps recognized that it was the universal practice of surgeons, when operating for mammary cancer, freely to remove any skin that appeared to be implicated; but he suggested that, even in cases where the skin was soft and supple, longer immunity from recurrence might be possibly obtained by its wide and free removal than by being satisfied with removing a mere elliptical portion involving the nipple.

DEATH OF DR. HOLMES O. PAULDING, UNITED STATES ARMY.—Dr. Holmes O. Paulding, Assistant Surgeon, United States Army, died sud-

denly at Fort Sidney, Nebraska, on Tuesday, the 1st inst. Dr. Paulding was commissioned First Lieutenant and Assistant Surgeon November 10, 1874, and received the rank of Captain November 10, 1879. He was a son of the late Commodore Leonard Paulding, United States Navy.

DR. PIFFARD'S ARTICLES.—Owing to the pressure on our columns, Dr. Piffard's fourth article is unavoidably postponed until a subsequent issue.

ARMY INTELLIGENCE.—*Official List of Changes of Stations and Duties of Officers of the Medical Department, United States Army, from April 28, 1883, to May 5, 1883.*—BAILY, JOSEPH C., Major and Surgeon. To be relieved from duty in the Department of California, and assigned to duty in the Department of Texas. Par. 12, S. O. 102, A. G. O., May 3, 1883. — TILTON, HENRY R., Major and Surgeon. To be relieved from duty in the Department of the Missouri, and assigned to duty in the Department of the East. Par. 13, S. O. 102, A. G. O., May 3, 1883. — BYRNE, CHARLES B., Captain and Assistant Surgeon. To be relieved from duty in the Department of the South, and assigned to duty in the Department of the Missouri. Par. 12, S. O. 102, A. G. O., May 3, 1883. — CRAMPTON, LOUIS W., Captain and Assistant Surgeon. Now awaiting orders, to proceed without delay to Fort Wayne, Michigan, and report to the commanding officer for duty at that post. Par. 2, S. O. 73, Department of the East, April 30, 1883. — PAULDING, HOLMES O., Captain and Assistant Surgeon. To be relieved from duty at Fort Sidney, Nebraska, and assigned to duty at Fort Douglas, Utah. Par. 1, S. O. 42, Department of the Platte, April 25, 1883. — PERLEY, HARRY O., Captain and Assistant Surgeon. To be relieved from duty in the Department of the East, and assigned to duty in the Department of Dakota. Par. 14, S. O. 102, A. G. O., May 3, 1883. — SPENCER, WILLIAM G., Captain and Assistant Surgeon. Now awaiting orders, assigned to duty in the Department of the East. Par. 12, S. O. 102, A. G. O., May 3, 1883. — WORTHINGTON, JAMES C., Captain and Assistant Surgeon. To be relieved from duty in the Department of the East, and assigned to duty in the Department of the Missouri. Par. 14, S. O. 102, A. G. O., May 3, 1883. — BIART, VICTOR, First Lieutenant and Assistant Surgeon. To be relieved from duty in the Department of the Missouri, and assigned to duty in the Department of Dakota. Par. 13, S. O. 102, A. G. O., May 3, 1883. — MACAULEY, CARTER N. B., First Lieutenant and Assistant Surgeon. To be relieved from duty in the Department of the East, and assigned to duty in the Department of Dakota. Par. 12, S. O. 102, A. G. O., May 3, 1883. — STRONG, NORTON, First Lieutenant and Assistant Surgeon. Upon expiration of leave of absence, to be assigned to duty at Fort Thornburgh, Utah. Par. 2, S. O. 42, Department of the Platte, April 25, 1883.

NAVAL INTELLIGENCE.—*List of Changes in the Medical Corps of the Navy during the week ending May 5, 1883.*—Passed Assistant Surgeon H. L. Law, detached from the Navy Yard, League Island, Pa., on the 10th inst., and ordered to the Yantic. — Passed Assistant Surgeon H. P. Harvey, detached from the Yantic on reporting of relief, and ordered to Chelsea Hospital. — Surgeon William J. Simon, ordered as member of a board at Naval Academy. — Passed Assistant Surgeon W. A. McClurg, detached from the Naval Academy on the 15th inst., and ordered to the United States steamer Dale. — Assistant Surgeon Oliver Diehl, detached from the Naval Academy, and ordered to the Constellation.

SOCIETY MEETINGS FOR THE COMING WEEK.—*Monday, May 14th:* New York Medico-Historical Society (private); New York Ophthalmological Society (private). *Tuesday, May 15th:* Medical Society of the State of Illinois (Peoria); Medical Association of Central New York (Syracuse); Medical Society of the County of Kings; New York Academy of Medicine (Section in Practice); New York Obstetrical Society (private). *Wednesday, May 16th:* Medical Society of the State of West Virginia (Grafton); New Jersey Academy of Medicine (Newark).

ERRATA.—In the editorial "New York as a Medical Center," in our issue of May 5th, p. 492, fourth line, read "services" for "various"; seventh line, read "diversity" for "density"; thirty-sixth line, read "variety" for "rarity."

Lectures and Addresses.

A LECTURE ON

THE TREATMENT OF CHRONIC SUP-
PURATION OF THE MIDDLE EAR.

DELIVERED IN THE NEW YORK POST-GRADUATE MEDICAL
SCHOOL,

By D. B. ST. JOHN ROOSA, M. D., LL. D.,

PROFESSOR OF THE DISEASES OF THE EYE AND EAR; SURGEON TO THE MAN-
HATTAN EYE AND EAR HOSPITAL, ETC.

THE name chronic suppuration of the middle ear implies a great deal. It comprehends a large variety of disease in one of the important parts of the body. The ancients gave the name of *otorrhœa*—a discharge from the ear—to this, and to all other affections in which there was a discharge of pus from the external auditory canal. But this name is defective in the essential quality of a descriptive name or a definition, simply because it is a definition which does not define, and it has been pretty generally discarded by the writers of our time. Now and then attempts are made to revive it, but the love of precision in statement characteristic of our day will render such attempts unavailing. The term chronic suppuration of the middle ear usually implies a perforation of the drumhead or *membrana tympani*. In exceedingly rare cases there may be a suppuration in the tympanic cavity and mastoid cells, especially in the latter, for weeks or even months, without the occurrence of a perforation of the delicate but firm membrane that forms the boundary between the middle and the external ear. In all but exceptional cases, however, when chronic suppuration of the middle ear is stated to be the diagnosis of a given case, it is meant that the ulceration involves the drumhead. The term perforation, in its turn, includes a great variety of pathological conditions.

For example, the drumhead may be entirely swept away; one half of it may be gone; one third of it may be gone; only a small opening about as large as the head of a pin may exist; two openings may exist; so that in the very appearance of the drumhead we may meet the greatest difference in conditions.

Besides, polypi may be seen through the perforation, springing from the tympanic cavity, or there may be small growths or granulations hardly to be dignified by the term polypi. We may find the opening covered by hardened wax, or even by dried pus. Quite large quantities of mucus, pus, or of mucus, or of a fluid like serum, may conceal the opening and be formed in a quantity sufficient to cause a constant flow into the auditory canal, or the quantity may be very small, and only to be detected on careful examination. In any consideration of the diseases of the middle ear the practitioner should remember that the mastoid cells, as well as the cavity of the tympanum, are an integral portion of this anatomical region. Hence it is that the lining membrane of the mastoid is usually involved in any inflammation of the middle ear. A glance at this cast

of the auditory canal, tympanic cavity, and mastoid cells, made by Dr. Wilson, of the staff of our hospital, will show you how the disease of one part will of necessity extend to the other. In the degree and extent of the inflammation of the mastoid during an *otitis media purulenta* there exists the greatest variability. In regard to caries and necrosis of the tympanic cavity there are also great differences in the morbid changes. The Eustachian tube, a part of the middle ear, as you all know, also furnishes a variety of lesions. Then when we turn to the "little bones of hearing," *ossicula auditus*, we may find a great difference in the changes in different cases. For example, the malleus may be gone wholly or in part, the incus may be gone, or even all three bones may have disappeared. The seventh nerve, in its passage through the canal of Fallopius, may be diseased, and facial paralysis be added to the other ravages of the serious disease which is now being discussed. After these facts are brought to your recollection, you will admit that I am justified in styling the term chronic suppuration of the middle ear a very comprehensive one. It is an erroneous method of teaching which would describe suppuration of the tympanic cavity and mastoid cells by the term *otorrhœa*, and I think that a discussion of the treatment of a discharge from the ear without a comprehensive view of the important pathological conditions which may exist in this part of the body must be in its very nature misleading. No discussion of the treatment of the formation and discharge of pus from this part of the body will be profitable unless there precedes it a full understanding of the anatomical and pathological conditions which allow this pus to be formed and collected.

If the middle ear were a simple canal or cavity, the principles at the basis of the treatment would, perhaps, be the same that they are now, but it comprises a *series* of anatomical parts, and the details in carrying out these principles are very different, and are much more varied than they would be were we dealing with a simple and easily bounded space. It is the anatomy of the middle ear that makes the treatment of its diseases not an entirely simple matter.

Chronic suppuration of the middle ear is relatively a very common affection. Of a total number of 6,671 cases of aural disease treated in the Manhattan Eye and Ear Hospital in ten years, 1,493, or one in five, were cases of this kind. These statistics are about the same as those of other hospitals. In private practice, however, the proportion of acute cases is larger.

When the suppurative action is fairly established in some or all of the parts of the middle ear, and there is a constant collection of pus or muco-pus, the first indication in the treatment is the frequent and thorough removal of this baneful secretion. It is a well-settled surgical principle that retained pus is always harmful; that no collections of it are to be allowed if it be possible to remove them. Nowhere is this more true than with reference to the middle ear.

The chief means of treating a chronic suppuration is to be found in a gentle and expeditious removal of the accumulation of pus before its insinuating and corroding properties

have time to do much harm. In a great majority of instances, in my opinion, the syringe and warm water remain the best means of such a cleansing of the ear. Of late objections have been made to the use of the syringe. One authority, for whom I have a great respect, says, in referring to the cleansing of the ear from pus, and in italics, too, "*The syringe, as a rule, is not to be used.*"* When differences of opinion as to modes of treatment arise, there is not much to be said except to show that one recognizes his own standpoint and the difficulties of it, and gives good heed to the contrary one. I think I am not ignorant of the abuse of syringing, or of the fact that much that is called cleansing the ear by syringing has no right to such a name. I am also well aware of the ill effects in isolated cases from syringing. I once reported † a case in which a gentleman who consulted me suffered so seriously from syncope, after a very gentle syringing of the ear, that for some moments it was thought by myself and others that he would certainly die. This patient, however, would probably suffer in the same way from any surgical procedure. After his recovery he told me that he had once fainted in the same alarming way on calling upon a surgeon who proposed to make some kind of an examination. Faintness, vertigo, and nausea are also sometimes produced even by gentle syringing of the ear. Yet, if the proper method is practiced, and the proper care as to gentleness be taken, it is not one case in a hundred in which any unpleasant symptoms will occur. Simple a procedure as it is, the proper method must first be learned. The water should be warmed; it should be injected into the concha before it is allowed to pass into the auditory canal—in short, until you know your patient, you should always proceed very slowly and gently with the syringe, especially in the removal of pus.

But, in spite of all these drawbacks, none of which I would underrate, I believe, as an outcome of twenty years' active experience in aural disease, that it remains the best means, on the whole, in by far the largest number of cases of cleansing the ear. I can not think that the use of warm water to the ear thoroughly and often is any more dangerous, but, on the contrary, of the same amount of good as the use of the same agent in the same way in cleansing fistulous ulcers, open cavities, and other parts of the body which may from time to time become filled with pus. I see no argument in the reasoning that, because warm water may soften the tissue, its use should be avoided for the purpose of cleansing a cavity which requires it. I would advise you, then, in the treatment of chronic suppuration, to consider as a general principle that the ear is to be syringed with warm water in the manner that I now show you, and that you have so often seen practiced here. The best syringe which I have ever seen is one that I lately procured in Paris of Lüer, which has not come into general use, but which we are using in this hospital, and which I am using in my private practice with great satisfaction. It is called the reservoir syringe, and, as you see, it is filled

without any motion of the piston, so that the one action required is the discharge of its contents into the ear. On the withdrawal of the piston it fills itself perfectly, as I now show you. The India-rubber syringes sold in the shops will do very well for patients to use in cases of short duration; in chronic cases a good metallic syringe is required. The fountain syringe is valuable where prolonged irrigation is required, as is also Fayette Taylor's douche. But for ordinary use the piston syringe, made of metal, is the preferable one for the purpose of removing discharges from the ear.

Unless the practitioner has had a large experience in cleansing ears, he should avoid the use of a syringe whose nozzle is long enough and sufficiently slender to enter the auditory canal as far as the junction of the bony with the cartilaginous portion. The slightest unexpected movement of the patient while the syringe is used may cause great harm to the lining membrane of the canal.

After the syringing, the parts should be dried by the use of absorbent cotton twisted about a stick, or the probe cotton-holder, very carefully applied with the aural mirror on the forehead, so that both hands are free. For self-evident reasons, it would never be proper to leave fluid in a cavity upon which medication is about to be applied. After you have secured thorough cleansing of the ears, I believe medication is of secondary importance. Wilde's snare and and Buck's curettes are the best instruments for removing polypi where instrumental interference becomes necessary. Nothing will keep up a discharge of pus from the ear so persistently as a small polypus or granulation. My experience is exactly the same as that of von Tröltzsch, published in his treatise on the ear, in the first edition of 1862, where he states that he has often seen a discharge of very long standing disappear as in the twinkling of an eye on the removal of a small growth. I think the curettes should be made with sharp edges—not blunt, as first sold in the shops. The profession is very much indebted to Dr. Buck for the suggestion of these very useful instruments for cleaning out the tympanic cavity and auditory canal. I hardly know how I would get on without them after having enjoyed their use for some years. Pedunculated granulations and polypi should be removed as one of the first steps in any continued treatment. Granulations with a broad base are very troublesome, it being very difficult to remove them thoroughly, even when the patient is under observation for a long time. It is often necessary to etherize the patient in order to free the tympanic cavity from granulations. The application of caustics for the removal of polypi or granulations is a large subject. It does not come within the province of this lecture to speak of that except in a very general way. The great prerequisite having been accomplished, of securing a free tympanic cavity, the question then is, What agent shall we choose for the cure of the diseased membrane, and, consequently, for stopping the discharge? A very great deal, of late, has been said about the so-called dry treatment of suppuration of the middle ear. There was a famous peripatetic quack who had a dry treatment which was peculiarly successful for a time. He was in the habit of pouring in plaster-of-Paris for the cure of long-existing discharge of pus from the ear, and the

* "Diseases of the Ear," by A. H. Buck, p. 282.

† "Archives of Otolaryngology," vol. ix, p. 16.

cure for a time was effectual. Much of the so-called dry treatment of to-day will in some cases be as disappointing as was its prototype. The treatment by powders is not particularly new, however. The late Mr. James Hinton was very much in the habit of using French chalk and other powders, and my former assistant, Dr. F. H. Rankin, of Newport, recommended iodoform in diseases of the ear, in an article published in the "New York Medical Journal" some eight or ten years ago, some time after he had successfully used it in this hospital. Treatment by powders is not, therefore, a new subject, although some agents, boric acid in particular, have been used only lately. In spite of all the claims for the exclusive use of powders in the treatment of the ear, and valuable as is their place in our therapeutic resources, I still think that instillations of fluids hold the first rank, and that the use of powders is of secondary value. Whatever may be thought of this view, it is, I think, indisputably sound doctrine that cleansing must precede the use of any agents, and that thorough cleansing is impossible, in many cases, without the use of the syringe.

For the healing of a diseased mucous membrane that has for some weeks or months secreted pus, and which is free from polypi or large granulations, I would advise that fluid applications be first tried. In my practice I use sulphate of zinc, from one to four grains to the ounce; sulphate of alum in the same proportion. Nitrate of silver I use usually upon a cotton-holder, from five to sixty grains to the ounce, or from a long, slender pipette adapted to the middle ear, in the weak solutions. If a strong solution of nitrate of silver be used, it should be at once neutralized with salt and water. I also use alcohol, as suggested by Lowenburg, of Paris, especially in cases where the tissue is granular. A preparation of resorcin, in cases where the mucous discharge exceeds the purulent, is also useful. Boric acid in solution seems to me to accomplish very little. It is, indeed, difficult to say which are the best astringents. But some cases do well with any of the ordinary astringents, and some never cease to be the seat of the formation of pus, no matter how long, how carefully you treat them, and what agents you may use. Carbolic acid and permanganate of potassium have proved worse than useless in my hands.

When solutions do not act well or promptly, powders may be resorted to. Iodoform is valuable in some cases. My associate, Dr. Ely, thinks it especially useful in those cases where the tissues are pallid and have an indolent appearance. Well-triturated boric acid is also a useful agent, although not so efficacious in my hands as it seems to be in those of others.

It is by no means a panacea, no matter how it is applied, or with whatsoever combinations. There are objections to powders which at once suggest themselves when their use is advocated in treating diseased mucous membranes, like those of the nose or middle ear. They are not always absorbed, and they sometimes leave a troublesome, irritating mass behind. Then they occasionally impair the hearing by mechanically obstructing the passage of the sound waves. The solution is poured into the ear, and in from five to ten minutes that which is not absorbed may be allowed to run out. The powder must remain until the ear

is again cleansed, which is not for hours. A tube made from a quill, or one of the powder-blowers especially invented for the purpose, do equally well for forcing the powder into the canal of the tympanic cavity. I do not employ large masses of the powder—simply enough to give the ulcerated or carious portion a good coating.

Solutions are usually much better tolerated by the ear when they are warm. A lighted gas-burner, the flame of a candle, a bowl of hot water, are all convenient means for heating the solution which is to be used.

When powder is employed, the mirror should be used from the forehead, so that you may know just where it has gone, and renew the application if not enough is applied.

Whatever may be said in favor of certain specifics, used either as powders or solutions, certain cases of suppuration of the middle ear will remain uncured in hands never so skillful. They are, from their nature or their environment, incurable. A case of long-standing ulceration in the tympanic cavity and mastoid is almost certain to involve death of the bone more or less superficial. When there is dead bone that can not properly be removed by instruments, solutions of dilute mineral acids, nitric acid and sulphuric—one quarter to one half per cent.—dropped into the ear twice a day (Dr. Urban Pritchard) will be serviceable. An error in treatment, an injudicious mode of life, an undue exposure to wet and cold, may at any time cause the smoldering disease to blaze into a condition that is fatal to life. Pyæmia, meningitis, and cerebral abscess are by no means the infrequent ending of some of those cases. He who has found a panacea for all of them is in a state of mind far removed from a scientific consideration of the conditions which are to be found in chronic suppuration of the middle ear.

When it is said that "a moist treatment of otorrhœa in many instances has a tendency to keep up rather than to check the morbid discharge from the ear,"* if by this language it is meant that careful cleansing of a suppurating middle ear with warm water, and the subsequent instillation of solutions, is in many instances a bad surgical method, I can only answer that this statement, according to my experience, is not borne out by facts. The presence of granulations and polypoid growths does not, in my opinion, contraindicate the use of warm water. Their presence does indicate, however, a necessity for their removal, either by the snare, the forceps, or caustics, *pari passu* with the constant cleansing process. Over and over again, however, have I seen growths shrivel and disappear, under the simple plan of cleansing the ear with warm water, before the operator was ready to remove them by cutting or twisting instruments or by caustics.

I think it very important to inflate the ears very frequently, from two to four times a week, and sometimes daily, by means of Politzer's method, during the treatment of chronic suppuration of the middle ear. The current of air is useful to dislodge inspissated pus or tenacious mucus, and it assists materially in the essential preliminary of all applications; that is, a complete removal of the pus. Sometimes exhaustion of the air from the side of the ex-

* Burnett, "Am. Jour. of the Med. Sci.," January, 1883.

ternal meatus aids in withdrawing mucus from the tympanic cavity. Siegle's instrument, or an ordinary air-bag, may be used for this purpose. Those cases in which there is a constant accumulation of long strings of very tenacious mucus, with very little pus, are exceedingly difficult to manage. The cause for this is to be found in the excessive catarrh of the naso-pharyngeal space, and of the Eustachian tube, which usually accompanies this condition of the tympanic cavity. The mucus is so tenacious in these cases that not even the syringe or the cotton-holder will remove it, but the forceps must be resorted to. Of course, fundamental treatment will begin at the *fons et origo* of the disease of the middle ear, that of the nose and throat. I need hardly say to a class of graduates that the general condition is to be most carefully considered in all cases of chronic local disease. You will often find much to do in this direction in these cases of chronic suppuration of the ear. The restoration of a perforated drumhead is a most interesting reparative process. The ease and rapidity with which they heal in recent cases is startling, and even in chronic cases we are sometimes agreeably surprised to see how soon a membrana tympani is restored after simple cleansing of the middle ear has been maintained for a few weeks.

The caustics which I use for removing granulations are fuming nitric acid and chromic acid, as well as solutions of nitrate of silver, from twenty to sixty grains to the ounce. Alcohol is also valuable. Lowenburg, of Paris, first recommended its use in these cases, and I am in the daily habit of using it. I usually cause the granulations to bleed freely by puncturing them with a cataract-needle before applying the caustics.

Burnett* thinks that zinc-drops may supply something which makes the bottom of the auditory canal favorable to the growth of the aspergillus or aural fungus. As proof of this is adduced the fact that a fungus is sometimes found in zinc solutions that have been imperfectly stoppered. All the harm that fungi in zinc or other solutions can probably accomplish is to weaken the solution. I consider this objection to zinc or other solutions as unsubstantiated as yet by any facts, and doubtful even from a theoretical point of view, for it is improbable that the fungus would be poured into the ear, but that portion free from it. Besides, the next good syringing with warm water would be an efficient parasiticide if any were necessary, before the growths were established.

In June, 1878, Dr. Edward T. Ely, my associate in private and public practice, made use of skin grafting in the treatment of chronic suppuration of the middle ear. Dr. Ely continued this practice in nine cases occurring among our patients, and I have repeated his experiments. This method of treatment is especially indicated for cases where we can not expect a restoration of the membrane and a cessation of the discharge by the ordinary treatment. The results obtained have not been brilliant, but in two cases a substantial gain in the condition of the tympanic cavity was secured. I have recently performed the operation, but with what result I can not yet say. Dr. Ely's paper

will be found in the "Archives of Otolaryngology," vol. ix, p. 343.

Many cases of chronic suppuration of the middle ear are not cured because the treatment is carried on by the patient himself or by his friends. Very few persons are capable of thoroughly cleansing their own ears. No one is capable of thoroughly cleansing the ear of another unless a special training for this object has been undergone. In fact, a successful treatment of these cases requires the care of a physician. It is easier to learn to clean and dress an ordinary bone fistula than to learn to remove the secretions from an inflamed tympanic cavity and mastoid cells. He who would bring his cases to a successful ending must himself bear the brunt of the labor of treatment. It can not be given over to inexperienced hands. Whenever this personal care of the physician is not to be obtained for these chronic cases, only approximately good results are possible. I have sometimes been able to train a nurse or relative of the patient so that quite thorough cleansing is effected. But this training will require about as much time as is given in one course to a student in the post-graduate school.

The surgeon who is in the frequent habit of examining the membrana tympani will find many cases that show how easily an ulcerated drumhead will sometimes heal under very simple or very crude treatment. Cicatricial drumheads are a very common experience in the aural surgeon's observations. A little study of the history of these cases shows that in very many instances they were healed when they were being treated with what we should term neglect. All this should teach us to be very careful students of the healing processes of Nature. In our anxiety to see results from treatment, let us remember to put ourselves in the position of Ambroise Paré, whose benediction to his wounded patient was, "I have dressed you, may God cure you."

All cases of chronic suppuration of the middle ear will not be cured even by good treatment and favorable conditions, while here and there we are surprised to find that some unpromising cases do very well, even under bad circumstances and with no thorough treatment.

To expect too much from treatment, to do too much, is to be meddlesome in intent and action. If we are to make a choice of evils, it is better to be skeptical and inactive than credulous and meddlesome.

It is an interesting fact that very few patients suffering from phthisis pulmonalis ever recover from a suppuration of the ear. Even so far as the accumulation of pus is concerned, no matter how long they may live, the cough usually prevents any healing of the membrana tympani. I have one case under observation—the only one I have ever seen—where the discharge and formation of pus have ceased, although the perforation of the membrane does not close.

THE TEXAS STATE MEDICAL SOCIETY, at its recent annual meeting, elected Dr. John A. Wyeth, of New York, an honorary member. Dr. Wyeth was present at the meeting, and made an address on the subject of the progress achieved and to be aimed at in medical education.

A MUNICIPAL LABORATORY OF HYGIENE has been established at Lisbon.

* "Am. Jour. of the Med. Sci.," January, 1883.

Original Communications.

THE HAIR, ITS USE AND ITS CARE.*

By JOHN V. SHOEMAKER, A. M., M. D.,

PHYSICIAN TO THE PHILADELPHIA HOSPITAL FOR SKIN DISEASES.

THE object of this paper is to briefly describe the hair and its important functions, and to suggest the proper manner of preserving it in a healthy state.

I know full well that much has been written upon this useful part of the human economy, but the constant increase of bald heads and beardless faces, notwithstanding all our modern advancement in the application of remedies to the cure of disease, prompts me to point out to you the many ways of retaining, without medication, the hair, which is a defense, ornamentation, and adornment to the human body.

[Dr. Shoemaker here gave an interesting history of the growth and development of the hair and its uses, which we are compelled to omit. Then, proceeding, he said:] Now, the hair, which fulfills such an important function in the adornment and health of the body, requires both constitutional and local care to keep it in its normal, healthy state. When I say constitutional care I mean that the various organs of the body that assist in nourishing and sustaining the hair-forming apparatus should, by judicious diet, exercise, and attention to the nervous system, be kept healthy and sound, in order that they in turn may assist in preserving the hairs in a vigorous condition.

In the first place, that essential material food, which is necessary to supply the waste and repair of all animal life, should be selected, given, or used according to good judgment and experience.

Thus, mothers should feed their infants at regular intervals according to their age, and not permit them to constantly pull on the breast or the bottle until the little stomach becomes gorged with food, and some alimentary disorder supervenes, often setting up a rash and interfering with the growth and development of the hair. It is likewise important, in case the baby must be artificially fed, to select good nutritious food as near as possible like the mother's—cow's milk, properly prepared, being the only recognized substitute. Care and discretion should likewise be taken by parents and nurses, after the infant has developed into childhood, to give simple, substantial, and varied food at regular periods of the day, and not in such quantities as to overload the stomach. Children need active nutrition to develop them into robust and healthy men and women; and it is from neglect of these important laws of health, and in allowing improper food, that very often bring their results in scald head, ring-worm, and scrofula, that leave their stamp in the poor development of the hair. With the advent of youth and the advance of years, food should be selected and partaken of according to the judgment and experience of its acceptable and wholesome action on the consumer.

The meals should also be taken at regular intervals. At

least four hours should be left between them for the act of digestion and the proper rest of the stomach.

It is, on the contrary, when the voice of nature has been stifled, when judgment and experience have been set aside, that mischief follows; when the stomach is teased and fretted with overloading, and the food gulped down without being masticated, gastric and intestinal derangement supervenes, which is one of the most prolific sources of the early decay and fall of the hair.

The nervous system, which is one of the most important portions of the human structure, and which controls circulation, secretion, and nutrition, often by being impaired, plays a prominent part in the production of baldness. Thus, it has been demonstrated by modern investigation that the nerves of nutrition, by their defective action, are often the cause of thinning and loss of hair. The nutritive action of a part is known to suddenly fail, the hair-forming apparatus ceases to act, the skin changes from a peculiar healthy hue to a white and shining appearance, and often loses at the same time its sensibility; the hairs drop out until very few remain, or the part becomes entirely bald. It is the over-taxing of the physical powers, excessive brain work, the exacting demands made by parents and teachers upon children's mental faculties, the loss of sleep, incessant cares, anxiety, grief, excitement, the sudden depression and exaltation of spirits, irregular and hastily bolted meals, the lack of rest and recreation, the abuse of tobacco, spirits, tea, coffee, and drugs of all forms, that are fruitful sources of this defective action of the nerves of nutrition, and consequent general thinning and loss of hair.

The hair, particularly of the head, should also receive marked local attention. In reference to the use of coverings for it, I know of no better rules than those which I laid down in my chapter on clothing in "Household Practice of Medicine" (vol. i, p. 218, William Wood & Co., New York), in which I state that the head is the only part of the body so protected by nature as to need no artificial covering.

The stiff hats so extensively worn by men produce more or less injury. Premature baldness most frequently first attacks that part of the head where pressure is made by the hat. It is, indeed, a pity that custom has so rigidly decreed that men and women must not appear out of doors with heads uncovered. It would be far better for the hair if to be bare-headed were the rule, and to wear a hat the exception.

Since we can not change our social regulations in this respect, we should endeavor to render them as harmless as possible.

The forms of hats that are least injurious are: for winter, soft hats of light weight, having an open structure, or pierced with numerous holes; for summer, light straws, also of open structure.

As regards the head-covering of women, the fashions have been for several years favorable to proper form. The bonnet and hat have become quite small, and cover but little of the head. This beneficial condition, however, is in part counterbalanced by the weight of false curls, switches, puffs, etc., by the aid of which women dress the head.

* Abstract of a paper read before the Pennsylvania State Medical Society, at Norristown, May 10, 1883.

These, by interfering with evaporation of the secretions, prevent proper regulations of the temperature of the scalp, and likewise lead to the retention of a certain amount of excrementitious matter, both of which are prolific sources of rapid thinning and loss of hair in women.

False hair has likewise sometimes been the means of introducing parasites, which give rise to obstinate affections of the scalp.

Cleanliness of the entire surface of the skin should next demand attention, and that should be done by using water as the medium of ablution. It is a well-known physiological law that it is necessary, in order to enable the skin to carry on its healthful action, to have washed off with water the constant cast of scales which become mingled with the unctuous and saline products, together with particles of dirt which coat over the pores, and thus interfere with the development of the hairs. Water for ablution can be of any temperature that may be acceptable and agreeable, according to the custom and condition of the bather's health. Many chemical substances can be combined with water to cleanse these effete productions from the skin. Soap is the most efficacious of all for cleanliness, health, and the avoidance of disease. Soap combines better with water to render these unctuous products miscible, and readily removes them thoroughly from the skin. The best variety of soap to use is the pure white soap, which can not be so easily adulterated by coloring material, or disguised by some perfume or medicinal substance. Ablution with soap and water should be performed once or twice a week at least, particularly to the head and beard, in order to keep open the hair tubes so that they may take in oxygen, give out carbon, carry on their nutrition, and maintain the hairs in a fine, polished, and healthy condition. In using water to the scalp and beard, care should be taken not to use soap-water too frequently, as it often causes irritation of the glands, and leads to the formation of scurf. It is equally important to avoid using on the head the daily shower-bath, which, by its sudden, rapid, and heavy fall, excites local irritation, and, as a result, loss of hair quickly follows. In case the health demands the shower-bath, the hair should be protected by a bathing cap. The most acceptable time to wash the hair, to those not accustomed to doing it with their morning bath, is just before retiring, in order to avoid going into the open air or getting into a draught and taking cold. After washing, the hair should be briskly rubbed with rough towels, the Turkish towel heated being particularly serviceable. Those who are delicate or sick, and fear taking cold or being chilled from the wet or damp hairs, should rub into the scalp a little bay rum, alcohol, or oil, a short time after the parts have been well chafed with towels. The oil is particularly serviceable at this period, as it is better absorbed, and at the same time overcomes any dryness of the skin which often follows washing.

It might be well to add in this connection that I have frequently been consulted, by those taking salt-water baths, as to the care of the hair during and after the bath. If the bather is in good health, and the hair is normal, the bather can go into the surf and remain at least fifteen

minutes, and on coming out should rub the hair thoroughly dry with towels.

Ladies should permit it to remain loose while doing so, after which it can be advantageously dressed.

It is, however, often injurious to both men and women having some wasting of the hair to go into the surf without properly protecting the head; the sea water has not, as is often thought, a tonic action on the scalp; on the contrary, it often excites irritation and general thinning. Again, it is most decidedly injurious to the hair for persons to remain in the surf one or two hours, the hair wet, and the head unprotected from the rays of the sun. This latter class of bathers, and those who hurriedly dress the hair wet, which soon becomes moldy and emits a disagreeable odor, are frequent sufferers from general loss and thinning of the hair.

An agreeable and efficient adjunct after ablution, which I have already referred to, is oil. Oil has not only a cleansing action upon the scalp, but it also overcomes any rough or uneven state of the hair, and gives it a soft and glossy appearance.

The oil of ergot is particularly serviceable in fulfilling these indications, and, at the same time, by its soothing and slight astringent action upon the glands, will arrest the formation of scurf. In using oil, the animal and vegetable oils should always be preferred, as mineral oils, especially the petroleum products, have a very poor affinity for animal tissues.

Pomatum is largely used by many in place of oil, as it remains on the surface and gives a full appearance to the hairs, thus hiding, sometimes, the thinness of the hair.

It will do no harm or no special good if it contains pure grease, wax, harmless perfume, and coloring matter, but it is often highly adulterated, or, the fat in it decomposing, sets up irritation on the part to which it is applied. I therefore always advise against its use.

The comb and brush are also agents of the toilet by which the hair is kept clean, vigorous, and healthy. The comb should be of flexible gum, with large, broad, blunt, round, and coarse teeth, having plenty of elasticity. It should be used to remove from the hairs any scurf or dirt that may have become entangled in them, to separate the hairs and prevent them from becoming matted and twisted together.

The fine-tooth comb, made with the teeth much closer together, can be used in place of the regular toilet comb just named when the hair is filled with very fine particles of scurf, dirt, or when parasites and their eggs infest the hairs. It should, however, always be borne in mind that combs are only for the hair, and not for the scalp or the skin, which is too often torn and dug up by carelessly and roughly pulling these valuable and important articles of toilet through the skin as well as the hair.

The brush with moderately stiff whalebone bristles may be passed gently over the hair several times during the day, to brush out the dust and the dandruff, and to keep the hair smooth, soft, and clean; rough and hard brushing the hair with brushes having very stiff bristles in them, especially the metal or wire bristles, is of no service, but often irritates the parts and causes the hair to fall out. [Dr. Shoe-

maker then denounced the use of the so-called electric brush, saying its use was injurious, as also was the effort to remove dandruff by the aid of the comb and brush. Continuing, he remarked:] And now the question arises, Should the hair be periodically cut? It may be that cutting and shaving may for the time increase the action of the growth, but it has no permanent effect either upon the hair-bulb or the hair-sac, and will not in any way add to the life of the hair.

On the contrary, cutting and shaving will cause the hair to grow longer for the time being, but in the end will inevitably shorten its term of life by exhausting the nutritive action of the hair-forming apparatus. When the hairs are frequently cut, they will usually become coarser, often losing the beautiful gloss of the fine and delicate hairs. The pigment will likewise change—brown, for instance, becoming chestnut, and black changing to a dark brown. In addition, the ends of very many will be split and ragged, presenting a brush-like appearance. If the hairs appear stunted in their growth upon portions of the scalp or beard, or gray hairs crop up here and there, the method of clipping off the ends of the short hairs, of plucking out the ragged, withered, and gray hairs, will allow them to grow stronger, longer, and thicker.

Mothers, in rearing their children, should not cut their hair at certain periods of the year (during the superstitious time of full moon), in order to increase its length and luxuriance as they bloom into womanhood and manhood. This habit of cutting the hair of children brings evil in place of good, and is also condemned by the distinguished worker in this department, Professor Kaposi, of Vienna, who states that it is well known that the hair of women who possess luxuriant locks from the time of girlhood never again attains its original length after having once been cut.

Pincus has made the same observation by frequent experiment, and he adds that there is a general opinion that frequent cutting of the hair increases its length; but the effect is different from that generally supposed. Thus, upon one occasion he states that he cut off circles of hair an inch in diameter on the heads of healthy men, and from week to week compared the intensity of growth of the shorn place with the rest of the hair. The result was surprising to this close and careful observer, as he found in some cases the numbers were equal, but generally the growth became slower after cutting, and he has never observed an increase in rapidity.

I might also add that I believe many beardless faces and bald heads in middle and advancing age are often due to constant cutting and shaving in early life. The young girls and boys seen daily upon our streets with their closely cropped heads, and the young men with their clean-shaven faces, are, year by year, by this fashion, having their hair-forming apparatus overstrained.

I also must condemn the modern practice of curling and crimping, the use of bandoline, powders, and all varieties of gum solutions, sharp hair-pins, long-pointed metal ornaments and hair combs, the wearing of chignons, false plaits, curls, and frizzes, as the latter are liable to cause headaches and tend to congestion. Likewise I protest against the use of castor-oil and the various mixtures extolled as the best

hair-tonics, restoratives, vegetable hair-dyes, or depilatories, as they are highly injurious instead of beneficial, the majority of hair-dyes being largely composed of lead salts. But, should your patients wish to hide their gray hairs, probably the best hair-dye that can be used safely is pyrogallie acid or walnut-juice, the hairs being first washed with an alkaline solution to get rid of the grease. Nitrate of silver is also a good and safe hair-dye, but its application should be done by one experienced in its use. The judicious use of these hair-dyes will give the hair above the surface of the skin a brownish-black appearance, the intensity of the color of which depends upon the strength of the solution. But hair-dyeing for premature grayness should be avoided, as the diseased condition may be averted by the proper remedies. Never permit the hair to be bleached for the purpose of obtaining the fashionable golden hue, as the arsenical solution generally used is highly dangerous; but, if your patients must have their hair of a golden color, insist upon their hair-dresser using the peroxide of hydrogen, which is less dangerous than the preparation first mentioned.

Perhaps one of the most pernicious compounds used for the hair at the present day is that which is sold in the shops as a depilatory. It is usually a mixture of quicklime and arsenic, and is wrongly used and recommended at this time by many physicians to remove hairy moles and an excessive growth of hair upon ladies' faces. Its application excites inflammation of the skin; and, while it removes the hair from the surface for the time, it often leaves a scar, or makes the part rough, congested, and deformed.

In the mean time, the hair will grow after a short period stronger, coarser, and changed in color, which will even more disfigure the person's countenance. With the present scientific knowledge of the application of electrolysis, hairs can be removed from the face of ladies or children, or in any improper situation, in the most harmless manner without using such obnoxious and injurious compounds as depilatories.

In conclusion, let me add that, if the hair becomes altered in texture, or falls out gradually or suddenly, or changes in color, a disease of the hair, either locally or generally, has set in, and the hair, and perhaps the constitution, now needs, as in any other disease, the constant care of the physician.

A general remedy for this or that hair disease that may develop will not answer, as hair diseases, like other affections, have no one remedy which will overcome wasting, thinning, or loss of color. Patients, reasoning upon this belief, frequently apply to me for a remedy to restore their hair to its full vigor or give them back its color. I always reply that I have no such remedy.

The general health, as well as the scalp and hairs, must be examined carefully, particularly the latter, with the lens and microscope. All changes must be watched, and the treatment varied from time to time according to the indications.

No one remedy can, therefore, under any circumstances, suit, as the remedy used to-day may be changed at the next or succeeding visit. No remedy for the hair will be neces-

sary if the foregoing advice be followed which I have just narrated, and which is the result of some seven years of labor and experience.

The proper consideration and putting into practice of these suggestions will most certainly secure to the rising generation fewer bald heads and more luxuriant hair than is possessed at the present day.

THE PATHOLOGY AND RADICAL CURE OF HAY FEVER, OR HAY ASTHMA.

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(Concluded from page 512.)

The importance of unobstructed nasal passages and free nasal respiration is generally recognized, but, in seeking for the cause of the symptoms which arise when these passages are obstructed, the nose is quite commonly overlooked. It is for this reason that I have purposely discussed somewhat in detail this sympathetic connection which exists to a greater or less degree between the nasal cavity and other parts and organs, and have endeavored to make it clear that the train of symptoms attending this affection, as suffusion and irritation of the eyes, sneezing, asthma, and other local or systemic derangements, is the result of this intense local irritation set up in the tissue of the nasal passages by these irritating substances.

In this relationship I also wish to point out that latent, as well as active, disease of this tissue will in many instances excite in it a hyperæsthesia or an inordinate sensitiveness to local impression.

The conclusion that this hyperæsthetic tissue of the nasal passages sustains a certain relation to the causation of hay fever has been reached in a natural manner by observing from time to time that patients who were under treatment for nasal diseases, and who also suffered severely from hay fever during the summer months, were relieved, or their attacks lessened in severity, in proportion as these diseased conditions in the nasal passages were removed; and that, in cases where this hypertrophied turbinated tissue was removed altogether, the patient became entirely exempt from subsequent attacks.

It has been observed, furthermore, that in every instance in those who were subject to hay fever, more or less disease or hypertrophy of this tissue existed, although hyperæsthesia of this tissue is induced in but a portion of those in whom this hypertrophy is found; and, as this hypertrophy is the cause, in nearly all cases, of what is termed nasal catarrh, so we find that hay fever is most prevalent in those regions where there is a predisposition to catarrhal diseases, and where the atmospheric conditions are such as to cause these hypertrophies.

By way of illustration, I will cite some well-marked and typical cases of hay fever which were entirely relieved by treatment of the nasal disease.

F. J. T., farmer, aged thirty-three years, was referred to

me by my late friend Dr. J. I. Denman, November 18, 1878. For twelve years previous he had more or less sensitiveness in the nose and throat, and was subject to frequent colds in the head. Early in the fall of 1876, while at the Centennial, he took a heavy cold in the head, which did not leave him as his colds had done before.

Shortly after this he had a watery, and later a thick and tenacious, discharge from the nose, which continued until I saw him.

In the fall of 1879 his nostrils became narrowed so that he had much difficulty in breathing through them, particularly at night on lying down. His sleep was disturbed by loud snoring, he was frequently aroused by attacks of dyspnoea, and in the morning his throat would be dry, with a bad taste in his mouth. He also remarked in this connection that he had been a sufferer from hay fever during these twelve years, and that it was becoming more severe each year.

His attacks came on about the 1st of July, during hay-fever time, and continued until early fall, and were attended with severe asthmatic attacks. They were becoming so severe that often he had to refrain from working in the field, and to shut himself up in the house; and frequently during the winter, on shaking dry hay to feed his horses, symptoms similar to his summer attacks would be brought on. Other forms of dust and also damp air affected him. He especially wished to know if these attacks of hay fever could be prevented. I told him the only sure way was to take an ocean voyage, or to go to some locality where hay fever sufferers were exempt.

An examination showed both nostrils to be greatly narrowed by inferior turbinated hypertrophy; also that there was pharyngo-laryngeal catarrh, a markedly scrolled and somewhat omega-shaped epiglottis with two small cysts near the tip on the lingual side.

In addition to the removal of the cysts, and topical treatment to the larynx and pharynx, I advised the removal of the turbinated hypertrophy with the galvano-cautery, to which he most cheerfully consented.

On the thorough removal of this hypertrophied tissue from the nose, and the cure of the disease in the throat, he was entirely relieved of the irritation in the nose, the discharge ceased, and he was troubled no more by snoring and attacks of dyspnoea at night.

Greatly to his, and also to my own surprise, he was not attacked by hay fever during the following summer; and, as he informed me a short time ago, he has been entirely exempt from it during each summer since.

G. B., aged thirty-three, merchant, was referred to me April 5, 1880, for treatment for marked nasal obstruction and nasal catarrh of ten years' standing. He stated that during each season he had had hay fever and hay asthma very severely, coming on about the 25th of July and continuing the remainder of the summer, oftentimes so severely as to compel him to seek relief at some reputed resort.

He was subject to frequent colds in the head, and had difficulty in breathing through the nose, with irritation in the throat and impairment and muffling of his voice, though he was not markedly hoarse.

An examination revealed in both nostrils marked anterior turbinated hypertrophy, the right nostril being nearly occluded.

Treatment.—I advised removal of this tissue with the galvano-cautery, which was done April 12th, which resulted in restoring free nasal respiration, removing his annoying catarrh, and, greatly to his surprise, giving him entire immunity from hay fever during the two summers which followed.

Mr. C. S., Abilene, Kansas, aged thirty-four years, a stout, well-developed man, came under my care December 31, 1881. He had been troubled more or less with naso-pharyngeal catarrh since he had scarlet fever, twenty years ago; and, during each summer, with hay fever, coming on about the 15th of August and continuing until frost came, and attended by more or less asthma. He was not free at any time from a sensitiveness about the throat and nostrils, and some difficulty in breathing through them when exposed to damp air or dust. He was also subject to frequent colds and attacks of hoarseness, with cough, and sometimes difficulty in articulation. His general health was good. An examination revealed marked hypertrophy of the vascular tissue covering the inferior turbinated bones and the lower portion of the septum, and also pharyngo-laryngeal catarrh.

Treatment.—I advised removal of the tissue obstruction in the nostrils and local medication to the larynx and pharynx. Wishing to avoid, if possible, all operative procedures, he decided to try the effect of local medication alone. Accordingly, for four weeks the most efficient and approved local medicaments were employed, with marked benefit, to the laryngeal affection, but with only temporary relief to the nasal obstruction. He went home, but returned April 8th, ten weeks afterward, to have the hypertrophied turbinated tissue removed, which was thoroughly done in both nostrils, the posterior turbinated hypertrophy with Jarvis's snare, the middle and anterior hypertrophy with the galvano-cautery. Local applications were also continued to the larynx, pharynx, and the surrounding slightly diseased portions of the nasal passages. He returned home May 15th, with complete relief from all his old nasal and laryngeal affections. In a letter received from him but a short time ago he states that he escaped the hay fever last summer, and has since remained very well.

Mrs. J. W. K., aged thirty-one years, was referred to me February 2, 1882. She had had nasal catarrh and obstructed nostrils for eight years, and each summer during this time hay fever very severely. Four years ago she began to have frequent and severe headaches, profuse discharge from the nose, loss of smell in the left side, and tinnitus aurium. She had also become unable to use her eyes to read or sew, on account of intense headache which was immediately brought on. Her general health was much below par, and she was weak and anæmic.

Examination.—Obstructed nostrils from turbinated hypertrophy and chronic follicular pharyngitis.

Treatment.—I advised the removal of this turbinated tissue, which was done February 12th, in both nostrils, with the galvano-cautery. The operation, with some attendant treatment, resulted in complete relief of the nasal stenosis, disappearance of the headaches on using the eyes or at any other

time, and marked improvement in her general health. She also escaped completely, last summer, her annual attack of hay fever.

Miss L. C., aged twenty-two years, vocalist, consulted me May 20, 1882, in regard to an impediment in her singing voice and pharyngeal irritation; and also in regard to hay fever and asthma, which had attacked her every year in July for eight years. This she wished prevented if possible, as she was unable to sing during the remainder of the summer. At other times she felt very well, and had no special trouble from catarrh or nasal obstruction unless exposed to the inhalation of dust.

Examination showed the vocal disability to be due mainly to hypertrophied tonsils. In the nose there was considerable hypertrophy of the turbinated tissue, which slightly impaired the nasal resonance, but which, owing to the large size of the passages, did not obstruct nasal respiration. Removal of the tonsils greatly improved the voice. She decided to have the nasal hypertrophy removed, to avoid, if possible, the hay fever. This was done June 21st, the posterior portion with Jarvis's nasal wire écraseur, the middle and anterior by the galvano-cautery. After the healing of the parts, the sensitiveness to exposure to dust was removed, and she has this summer completely escaped her annual attacks of hay fever.

In all these cases it will be seen that the galvanic cautery was used either alone or as a supplement to the use of the snare.

In many cases, on attempting to remove the nasal hypertrophies with the snare alone, or by the employment of caustics, as nitric acid, chromic acid, acetic acid, etc., the attacks of hay fever were to a greater or less degree lessened, but not altogether prevented; although at that time it was supposed to be only an accidental complication, the connection between it and the hypertrophy of the turbinated tissue not then having been recognized.

For the removal of this tissue, Jarvis's snare is the most efficient means of removing that at the posterior end of the turbinated bone, as the tissue here is usually more or less pedunculated and can be readily engaged in the loop; while that covering the middle and anterior portion of the turbinated bone is almost always sessile, and it is rare that enough of this tissue, and particularly the deep plexuses of vessels, can be removed by it to be effective, even when the clamp-forceps or the transfixion needle is used.

In the employment of caustics, the mucous and cellular tissue is readily removed, but the vessels, being much more resisting, are not destroyed.

The galvanic cautery, therefore, is the most reliable and radical method to employ.

It serves a threefold purpose: that of destroying the tissues and vessels with which the electrode comes in contact, of obliterating the surrounding vessels by the plastic exudate which is thrown out, and of removing the hyperæsthesia of the terminal nerve-fibers in the part.

By using a small electrode and burning but little at each introduction, to avoid the excessive heating of the surrounding tissues, and afterward, by keeping the parts protected by vaseline warmed and thrown into the nostrils with the spray tube immediately after the operation and

until the slough separates and the parts are healed, and avoiding during this time the use of aqueous solutions, the inflammatory complications which have so frequently occurred can be almost invariably prevented. On burning but little at each introduction of the electrode it is usually necessary to introduce it several times before the destruction of the tissue is accomplished; but this is far preferable to burning it all off at one introduction of the electrode, and pain is thereby almost completely avoided.

This opinion that nasal disease is the direct cause which predisposes to attacks of hay fever is also supported by Dr. Daly, of Pittsburgh, in a recent article on the "Relations of Hay Asthma and Chronic Naso-Pharyngeal Catarrh." (*Archives of Laryngology*, April, 1882, vol. iii, p. 157.)

In this article Dr. Daly reports the histories of three patients who were chronic sufferers from hay fever, for six, fifteen, and twenty-one years, and, in every instance where he removed this turbinated hypertrophy and cured the nasal disease, the patients were given complete immunity from further attacks, although constantly exposed to the same influences which had affected them so severely before.

Thus, from the study of hay fever in the light of the most recent investigations as to its cause, and our present knowledge of nasal diseases and their influence on other organs, we may draw the following conclusions:

1. That hay fever is an affection not confined to age, sex, or condition in life.
2. That it is excited by the pollen of flowers or grasses, dust, or other irritating substances floating in the atmosphere, which are brought, by inhalation, in contact with the nasal and bronchial mucous membrane.
3. That the nasal mucous membrane in certain individuals is very susceptible to the irritating effect of these substances, while in others it is not.
4. That this hyperæsthesia is associated with or occasioned by a diseased condition, either latent or active, of the naso-pharyngeal mucous membrane and with an hypertrophied condition of the vascular tissue covering the turbinated bones and the lower portion of the septum.
5. That the systemic disturbances, such as asthma, etc., are the effect of the local irritation of this diseased tissue in the nasal passages which is reflected to the larynx, bronchi, and lungs, causing in them a fluctuatory hyperæmia, produced through the correlating function of the sympathetic ganglia connecting these different regions.
6. That the treatment during the attack can only be palliative, such as to soothe the inflamed parts and to quiet the systemic disturbance which may be occasioned.
7. That in most cases the only effective relief, during the attack, consists in going to a seaport or mountainous region, or to any locality where the air is free from the substance which produces the irritation.
8. That curative measures can only be adopted when the individual is free from the attack.
9. That the removal of the diseased tissue in the nasal passages removes the susceptibility of the individual to future attacks of hay fever.

Clinical Reports.

ST. LUKE'S HOSPITAL.

Reported by CHARLES A. KINCH, M. D.*

(SERVICE OF DR. BEVERLEY ROBINSON.)

THREE CASES OF TYPHOID FEVER; BILIARY CALCULUS AND JAUNDICE; ERYTHEMA NODOSUM.

DURING the last autumn a number of cases of typhoid fever have been treated in the hospital. Of them three are selected as presenting courses of temperature of peculiar interest.

CASE I.—UNCOMPLICATED TYPHOID FEVER OF LONG DURATION.

James, aged twenty-four; single; Ireland; coachman; admitted August 31st.

Ten days before this young man came to the hospital he began to have headache, vomiting, and chilly sensations, with indisposition to work. He had no epistaxis, and was very much constipated. He was compelled to go to bed five days ago.

He was bright, and perfectly intelligent on admission, but had high temperature (104° F.), pain in both iliac fossæ, and marked gurgling. There were no spots on the abdomen. He was put upon milk diet and dilute nitric acid drink.

September 2d.—The patient was seized with vomiting. The ejected matters consisted of milk and some blood and mucus.

3d–8th.—The milk was given in small quantities. An enema was given every second day to unload the bowels.

9th.—During the evening the fever reached 104·8°. A bath caused a rapid reduction of 4·6°. The patient had a chill. Brandy and chloroform were freely administered, and in two hours the temperature rose again to 104°. The pulse was good. Examination of the chest the next morning showed slight dullness at the base of both lungs, but no changes in the voice, sounds, or breathing. After this sponge baths were given instead of immersions.

13th.—No special change. The general condition was apparently not much affected by the high temperature.

27th.—Though the patient had been taking quinine and brandy, the temperature continues high. The pulse was good. The bowels had been opened only by enemata.

October 5th.—The temperature presented wide oscillations. The tongue was moister. The mental condition was good.

9th.—The patient was improving. He began to ask for something to eat.

27th.—He had normal temperature.

November 2d.—To-day the first solid food was taken. The patient had profuse sweatings, and his temperature was subnormal.

23d.—The man had gained nine pounds in the past week. He had received light diet, and quin. sulph., gr. v (0·33), *bis die*.

December 15th.—Discharged cured.

CASE II.—TYPHOID FEVER COMPLICATED WITH ACUTE PLEURISY.

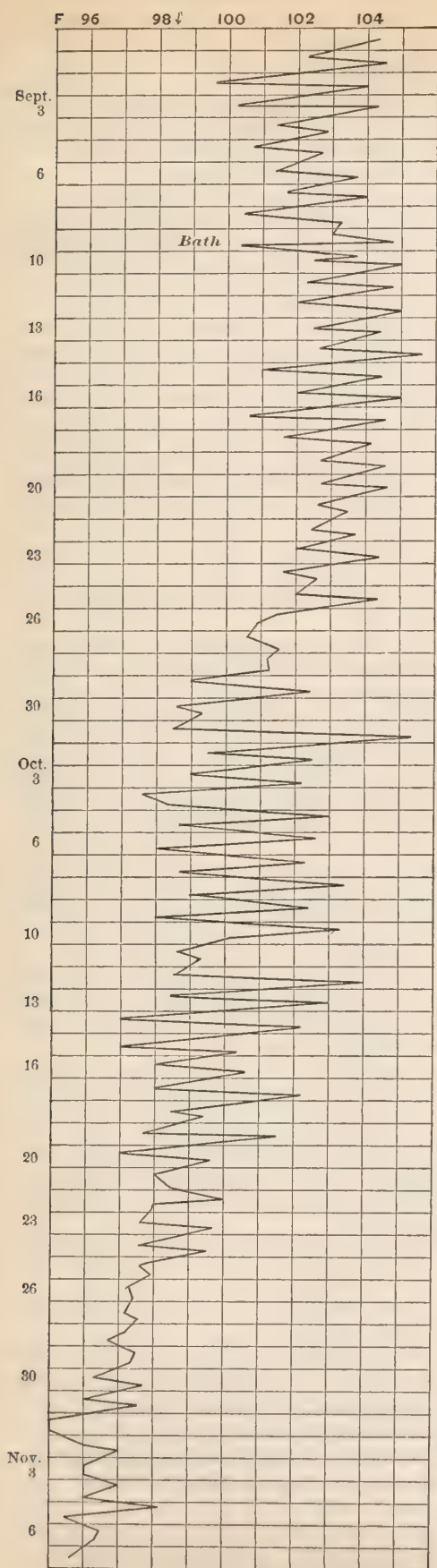
William, aged thirty-two; widower; Ireland; employed in the gas-works; admitted October 31st.

Two weeks ago this patient began to suffer pain in the head and limbs, and lost appetite. A week later he began to be feverish, and had pain of moderate severity in the right iliac fossa. He had no diarrhœa. Four days ago he felt weak enough to go to bed, and he bled from the nose yesterday.

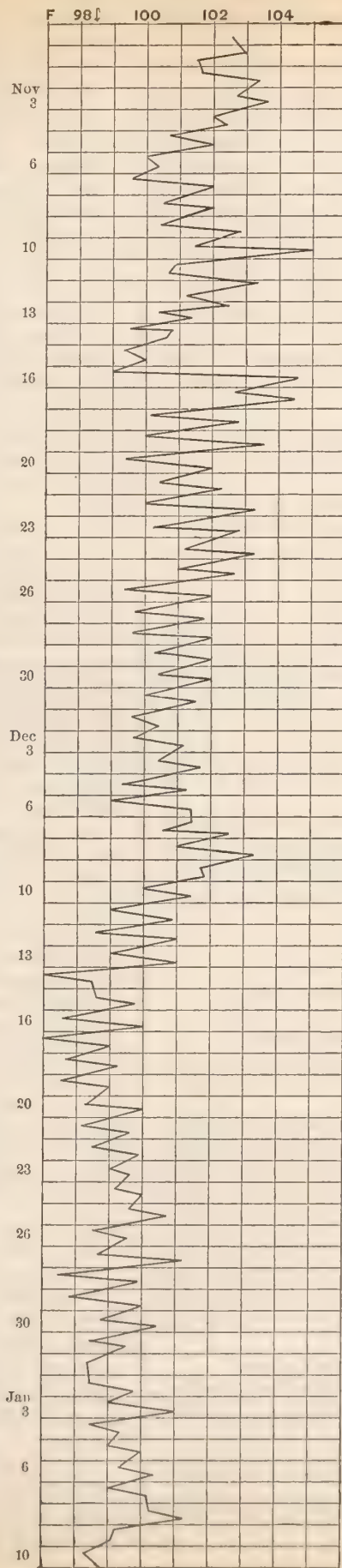
On admission, the patient, a well-nourished man, exhibited

* From notes kindly furnished by Dr. Moffatt, house physician, and Dr. Devlin, senior assistant.

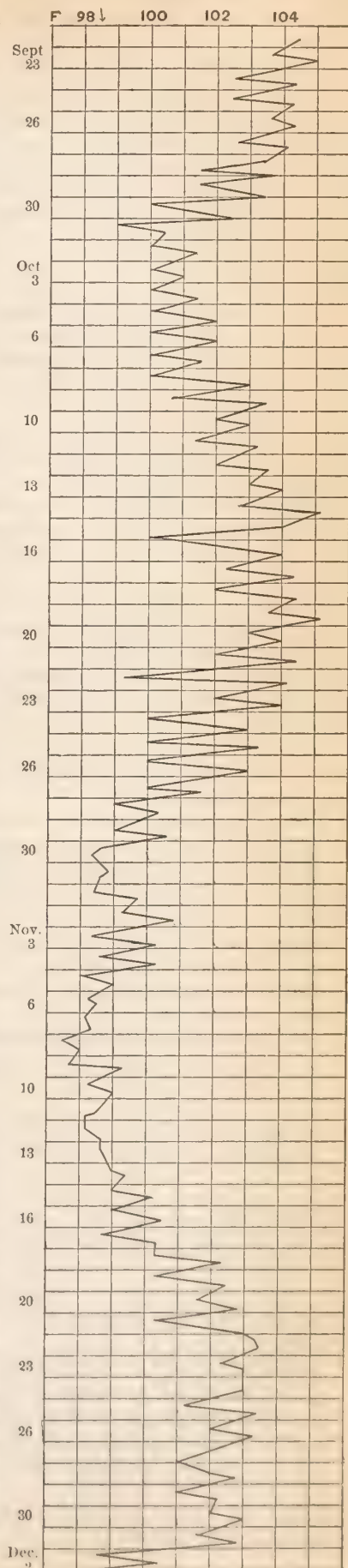
1° James



2° William



3° Annie



a few suspicious spots on the abdomen, a tongue slightly coated, and a dicrotic, feeble pulse. His mind was sluggish, though perfectly rational. He was given milk diet, whisky, and black coffee.

November 3d.—Numerous typhoid papules existed on the skin. The heart's action was exceedingly rapid, and its sounds indistinct and feeble. In the second interspace there was prolongation of the first sound. There were a few subcrepitant râles at the level of the second rib on the left side. The patient was delirious. The quantity of stimulant was increased, and a mixture containing two grains (0·13) of carbonate of ammonium and two minims (0·13) each of the tinctures of digitalis, nux vomica, and belladonna, was to be given every two hours. Opium was administered cautiously in grain doses.

4th.—The patient was perfectly rational. His pulse was easily counted, 120 to the minute, but weak.

8th.—The temperature was moderately elevated. The tongue was slightly coated and moist. The bowels were opened thrice daily with yellow liquid stools.

10th.—An acute pleuritis had developed in the left side. A solution of morphine was injected under the skin over the affected part, and a sinapism applied.

12th.—The bowels required to be moved by an enema.

16th.—There was again some pain in the side. The cautery was used, and twenty-five grains (1·66) of quinine given to control the fever.

23d.—*R* Ol. terebinth, *℥*ij (0·13), every two hours.

December 5th.—He was passing seventy ounces (2·17 litres) of urine daily, and sweating profusely. The first sound of the heart was prolonged. The temperature was slightly elevated. Stop Ol. terebinth. *R* Caffein. citrat., *gr*. ij (0·13), every two hours.

9th.—Less sweating. Stop caffeine. It had not acted satisfactorily as a stimulant. *R* Pil. ferri carbonat, *gr*. ij (0·40), three times a day.

10th.—*R* Ext. convallariæ fl., *℥*v (0·33), every three hours.

12th.—The heart sounds were weak but regular. Pulse, 96.

25th.—Candy was distributed through the ward, and this patient had been eating some of it. His temperature was elevated.

January 5th.—Temperature normal.

22d.—The patient had been improving steadily.

23d.—He desired to go home. Discharged cured.

CASE III.—TYPHOID FEVER WITH RELAPSE.

Annie, aged twenty-two; single; Ireland; domestic; admitted September 22d.

This young woman, six weeks before admission, had a slight chill, followed by fever and sweating. This had been repeated every day up to date. She had had headache and pain through the small of the back. She had vomited a good deal. She had had severe diarrhoea up to within a few days ago, and some abdominal pain. There was no tenderness on pressure, but gurgling in the right iliac fossa. She complained of pain over the region of the spleen. Some spots were visible on the skin of the abdomen. She had had no epistaxis, and had been confined to the bed only one day.

Milk diet and dilute nitric acid drink were ordered.

September 23d.—The temperature rose high, and a bath was given. Half an ounce (16·00) of brandy was given before the bath, and also repeated every six hours.

October 1st.—The temperature was falling. The bowels required an enema to move them.

7th.—Improvement continued. The patient was permitted to eat toast without crust.

13th.—The temperature had been rising. Milk diet was resumed.

15th–16th.—*R* Quin. sulph., *gr*. xx (1·33), at seven, and *gr*. x (0·66) at eight in the morning.

19th.—The bowels were constipated.

23d.—There was a plentiful eruption of typhoid spots.

26th.—The patient was decidedly better. Her face was brighter, and she had appetite. The eruption was fading.

November 16th.—The temperature was rising.

24th.—A few rose-spots again appeared on the abdomen.

December 1st.—The first sound of the heart seemed sometimes to be doubled. *R* Caffein., *gr*. ij (0·13), every three hours.

3d.—There was a decided reduction in the temperature.

4th.—She slept well. Stopped caffeine.

18th.—The temperature was now normal.

January 15th.—The patient received "light diet." She was informed to-day by one of her family that her sister had died in this hospital during the summer, and also that her father had lately died. Her sister had been exposed to the same source of infection in an out-of-town hotel, and, being brought to the hospital, had died in the third week. This sad news depressed her mind very much, and she desired to leave. Discharged cured.

BILIARY CALCULUS AND JAUNDICE.

Jane, aged thirty-eight; married; United States; domestic. Admitted December 5th.

This patient had, five years ago, an attack consisting of very severe pain in the epigastrium and right hypochondrium, with vomiting, jaundice, fever, and constipation. The acute symptoms subsided after about two weeks. Two years ago, and again last spring, she had similar attacks, but not so severe. Since the last she has been quite well until two weeks ago, when she began to suffer nausea, vomiting, and general malaise. She was treated by a non-professional "sister," and salivated with calomel.

One week ago, after exposure during her menses, she had a slight chill, followed by febrile movement and severe uterine tenesmus. A couple of days later she passed a clot the size of a chestnut. Her menses had previously been quite regular.

She now complained of pain in the epigastrium. Her uterus was tender on pressure, and she had leucorrhœa. Her bowels were constipated, and appetite poor. She had had no vomiting or jaundice during the last few days.

It was thought that her attacks of pain, of which she had given the history, were caused by the passage of gall-stones. Her endometritis was treated with benefit until

December 22d., when she vomited several times, and the next day developed an icteroid hue. *R* Bismuth, *gr*. x (0·66), morph. sulph., *gr*. $\frac{1}{2}$ (0·005), every four hours, together with pil. podophylli co. no. j at bed hour.

28th.—There were pain and tenderness over the gall-badder, but no distension was apparent.

30th.—Stop bismuth and morphine powders. *R* Sod. sulph., *3j* (4·00), every three hours.

31st.—There was a fresh accession of jaundice and renewed vomiting. She had no pain. For the sulphate of sodium substituted Carlsbad water, *3ij* (60·00), three times a day.

January 4th.—The jaundice was deepening.

8th.—No improvement. Stopped Carlsbad and gave euonymin, *gr*. j (0·066), and a "pearl of ether" alternately three hours apart.

12th.—The patient was allowed to take one bottle of natural Vichy (Grande Grille) daily. She must avoid cheese, butter, fat, tea, sugar, and potatoes. She might eat moderately of green vegetables.

15th.—℞ Sod. bicarb., gr. xx (1·33), sp. camphor, 3 ss. (2·00), aq. Vichy, ℥ ij (60·00). M. S. Every three hours.

23d.—The jaundice was fading quite markedly. The bowels were again constipated. ℞ Sod. sulphat., 3 ij (60·00), every morning.

February 2d.—℞ Pil. ferri carbonat., gr. v (0·33), three times a day.

20th.—The patient was nearly well.

ERYTHEMA NODOSUM.

Louisa, aged eighteen; single; United States; nurse. Admitted December 6th.

This patient never had rheumatism. She had suffered from various dyspeptic symptoms for a year or more—sour eructations, flatulence, and constipation. She had no menstrual derangement. One week ago there appeared suddenly on her legs numerous elevated painful spots, hard to the touch, tense and red. In a few days they also appeared on the thighs and arms. At that time the patient had an attack of severe headache, dizziness, and vertigo, with a considerable rise of temperature.

On admission, the patient, well nourished, complained of nothing but tenderness of the spots above mentioned. These spots were dark-blue or greenish in color, and looked like bruises. Her appetite was poor, and bowels constipated. Pulse, 102; temperature, 102·4°. The urine contained abundant urates.

℞ Sod. bicarb., gr. xx (1·33), in Vichy water, once in three hours.

December 7th.—The bowels were freely moved by saline mixture.

9th.—The patient complained of pain in the left side. Physical examination revealed a little pleuritic roughening around the base of the lung, and a small amount of effusion posteriorly. A blister was ordered.

12th.—The saline laxative was again required. ℞ Ae. nitrohydrochloric, dilut., ℥ xv (1·00), infus. quassia, ℥ ss. (16·00). M. S. Three times a day.

14th.—The temperature remained elevated. The spots had disappeared, and the patient complained of no pain. ℞ Quin. s., gr. v (0·33), twice a day.

19th.—No trace of the eruption remained.

22d.—She complained of pain in the left side. There was no pleuritic crackling. Temperature, 102°.

23d.—Temperature normal. She complained of slight sore throat.

28th.—Yesterday the erythema nodosum returned on the legs and arms and right forearm. For the intercostal neuralgia gave tr. bryoniae, ℥ x (0·66), every four hours.

29th.—Liniment. aconit., locally. Stopped ac. nitric. and infus. quassia. ℞ Sod. bicarb., gr. xx (1·33), three times a day.

January 3d.—Erythema subsiding. Discharged improved.

Book Notices.

On Slight Ailments: their Nature and Treatment. By LIONEL S. BEALE, M. B., F. R. S., F. R. C. P., Professor of the Principles and Practice of Medicine in King's College, London, etc. Second edition, enlarged and illustrated. Philadelphia: P. Blakiston, Son & Co., 1882. Pp. 283.

AN extended review of this attractive little volume would be unnecessary, since it has already met with such a favorable reception in a former edition. It is not, as might be inferred from the title, one of those mediocre hand-books, such as are

becoming a drug in the medical market, but the recorded experience of a scientific physician.

The pervading tone of the work, as outlined in the introduction, is elevated: its key-note is truth and honor versus quackery. Perhaps, however, there is a shade of bitterness in the author's comments upon practitioners of the new school.

Over a third of the book is devoted to derangements of the alimentary canal, and no reader can fail to obtain many a useful hint with regard to its minor ailments. The usual space is given to the subject of biliousness (a favorite topic with English writers), and American readers may be somewhat amused at finding that the liver is made subject to slight atmospheric fluctuations. Under the section on inflammation Dr. Beale makes a long and interesting digression into paths more strictly scientific than he had previously followed, and discusses the latest views on vasomotor nerve action. He takes occasion, moreover, to introduce his theory of bioplasts, opposing Lister's ideas on sepsis.

To commend this little book briefly, we would say that it deserves a place in the library, not so much for its intrinsic value, or because it presents any new facts, as for its suggestiveness. It is a valuable lesson which Dr. Beale teaches, that we may dignify by scientific study what is apparently of small importance, and that he only is an accomplished physician to whom no ailment is trivial.

BOOKS AND PAMPHLETS RECEIVED.

The International Encyclopædia of Surgery. A Systematic Treatise on the Theory and Practice of Surgery by Authors of Various Nations. Edited by John Ashhurst, Jr., M. D., Professor of Clinical Surgery in the University of Pennsylvania. Illustrated with chromo-lithographs and wood-cuts. In six volumes. Vol. III. New York: William Wood & Co., 1883. Pp. xxxix-760.

Working Bulletins for the Scientific Investigation of the Newer Materia Medica. A Plan to Promote Progress in the Science of Pharmacology, etc. Vol. I. Detroit: Parke, Davis & Co., 1883. Pp. xv-207.

The Microscope and its Revelations. By William B. Carpenter, C. B., M. D., LL. D., etc., Corresponding Member of the Institute of France, etc. Sixth edition, illustrated by twenty-six plates and five hundred wood engravings. Vol. I. New York: William Wood & Co., 1883. Pp. xi-386.

On the Pathology of Bronchitis, Catarrhal Pneumonia, Tubercle, and Allied Lesions of the Human Lung. By D. J. Hamilton, M. B., F. R. C. S. E., F. R. S. E., Professor of Pathological Anatomy (Sir Erasmus Wilson Chair), University of Aberdeen. With illustrations. London: Macmillan & Co., 1883. Pp. xii-248.

Oliver Wendell Holmes: Poet, Littérateur, Scientist. By William Sloane Kennedy. Boston: S. E. Cassino & Co., 1883. Pp. 356.

Contribution à l'étude et au diagnostic des formes frustes de la maladie de Basedow. Par M. le Dr. Pierre Marie, ancien interne des hôpitaux de Paris, etc. Paris: Bureaux du "Progrès médical," 1883. Pp. 86. [Prix, 2·50 fr.]

Des névroses du larynx. Leçons professées à l'hôpital de Lourcine en 1882. Par le Dr. A. Gouguenheim, médecin de l'hôpital Bichat. Recueillies par G. Morin, interne des hôpitaux. Paris: Bureaux du "Progrès médical," 1883. Pp. 29. [Prix, 1 fr.]

Preliminary Observations on the Pathology of Seasickness. By J. A. Irwin, M. A. Cantab., M. D. Dub., M. R. C. S. E., etc. London: Ballantyne, Hanson & Co., 1881. Pp. 13.

One Hundred Cases of Antiseptic Ovariectomy. By John Homans, M. D., Boston, Mass. Pp. 4.

Cranial Nerves. By William Oscar Thrailkill, M. A., M. D., D. D. S., etc. [Table.]

THE
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A Weekly Review of Medicine.

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FRANK P. FOSTER, M. D.

NEW YORK, SATURDAY, MAY 19, 1883.

THE EXPEDIENCY OF THE ACADEMY OF MEDICINE'S
RECENT ACTION.

LAST week we gave a number of extracts from the legislative acts by which the Academy of Medicine was constituted, and from which it derives its powers, together with several passages from its constitution and by-laws, accompanied by a few comments in which, while conceding the entire right of the Academy to take the course it took in adopting Dr. Flint's resolutions, we remarked that the question of the wisdom of that course was quite another matter.

We hear occasionally of a tradition to the effect that the Academy was organized in great measure as a means of raising the profession of New York from a state of laxity into which it had fallen in regard to the matter of ethics. It may be that such an idea was uppermost with the founders of the Academy at the time of its organization, but whether that was the case or not is a matter of very little consequence to the present generation; the Academy long ago ceased to be the body to which the great majority of its members looked to see any prominent stand taken in ethics, for in this community those matters have by common consent been relegated to the county and State societies, and the Academy has come more and more to be looked upon as our leading scientific organization and as the central repository of the literature that belonged to the profession in common. During the last few years the Academy has made most notable and gratifying progress toward the attainment of a material prosperity and usefulness of which we might well feel proud. Year by year this fact has been realized by an increasing proportion of the profession in New York, and the feeling has been growing that every member of the profession who was so situated as to be able to contribute to the maintenance and the advancement of whatever tended to enhance the scientific resources and the dignity of medicine in New York could do so in no more fitting or effective way than by joining the Academy. In other words, a continued increase of its membership has seemed desirable and even essential to its successful working. Unless the feeling of the Academy has been grossly misinterpreted, it has itself assumed the attitude of agreement with this general sentiment.

Now, however, the Academy has distinctly proclaimed that it will not tolerate accessions to its ranks save from among those who hold certain opinions as to ethics. A less radical measure would have answered the purpose if the prime consideration was to appear before the profession throughout the country at large as dissenting from the ethical stand lately taken by the State society, for a resolution simply declaring

the sense of the Academy would have accomplished that. There can be no doubt that such a resolution could have been passed at any meeting, notice having been given previously that it would be brought up at that meeting. Such a course, while it would have been quite as emphatic an expression of ethical sentiment as was involved in the passage of Dr. Flint's resolutions, would not have crippled the Academy by restricting the number of those from whom future increments of its membership were to be drawn, nor would it have excited the pronounced feeling of regret with which many now look upon the action that was taken—a regret, it must be conceded, that has but little to do with men's sentiments concerning the ethical question.

The advocates of the code of ethics of the American Medical Association have gained absolutely nothing, so far as we can see, by this action, and it seems impossible that the Academy should not prove a heavy loser. The prospect of its adding to its membership seems exceedingly slender, since it positively declines to accept men who do not favor the re-enactment of the old code, and since those who do favor that measure are likely to be cautious about allowing their names to come before a meeting of the Academy, lest a spirit of retaliation should prompt the opponents of the old code to muster in sufficient force to prevent their election. Whatever assurance may be given that the minority will not descend to that sort of tactics, however pardonable such a course might be thought under the circumstances—and we feel sure that they will not adopt so paltry a policy—human nature is so constituted that a blow deserved is a blow feared, and so, we repeat, it is very likely that considerable time must elapse before the dominant party in the Academy can feel itself safe in bringing candidates' names before the meetings, even if the candidates themselves are willing to run the risk involved.

In a certain sense the Academy is paralyzed for the time being, and nothing short of an absolute reversal of its recent action can restore it. Such a reversal we look to see accomplished in one way or another, in spite of the pains that were taken to make the adoption of Dr. Flint's resolutions final. An attempt to restore the *status quo* would not be entered upon as a step in the ethical controversy, but solely in the interest of the Academy, and we believe it would find its most active supporters among those who are really in favor of the old code, the great majority of those gentlemen being, if we may judge by their conversation, heartily sorry that the resolutions were passed.

THE MEDICAL SERVICE ON BOARD ATLANTIC PASSENGER
STEAMSHIPS.

In our issue of March 24th we called attention to the nigardliness of steamship owners in the matter of the remuneration and quarters they allowed the medical officers of their ships, and we expressed the hope that the profession in this country would co-operate with their brethren in England in the endeavor to bring ship-owners to a sense of their

duty. We subsequently published the propositions bearing on the subject that were laid before the British Board of Trade by the Parliamentary Bills Committee of the British Medical Association. It has been our intention to publish also several communications that have appeared in our London contemporaries, especially those by Dr. J. A. Irwin, who has borne the brunt of the contest with ship-owners over the matter; but lack of space has prevented us.

We have lately been favored by Dr. Irwin with a pamphlet containing several of his letters, together with a resolution passed by the Manchester Medico-Ethical Association, leading articles from the four weekly medical journals of London, extracts from various non-medical papers, and vigorous passages from letters by Medical Director T. J. Turner, of our navy, and Dr. Morell Mackenzie, of London. In a private letter Dr. Irwin justly intimates that the American people are really more affected by the quality of the medical service on board the great Atlantic passenger-ships than his own countrymen. This, certainly, can not be denied, and we would again urge the matter upon our readers' attention, trusting that, so far as in them lies, they will co-operate with the efforts of our English colleagues to bring the service under proper regulation, and to secure for those of our profession who follow the irksome life of a ship's surgeon the comforts, the emoluments, and the authority that a medical officer charged with such grave responsibilities is unquestionably entitled to.

OLIVER WENDELL HOLMES.

Two books lie before us, of each of which it may be said that its appearance is most timely. It is but a few weeks since a few of us in New York represented in Dr. Holmes's presence the feeling of the great body of the profession that he had taken leave of—a feeling of regret that in a certain sense we were losing him, mingled with the feeling that, in the exclusive devotion to literature that he was entering upon, something of the added radiance that was sure to come to him would be reflected upon the guild that gave him his early training. This regret and this expectation will severally be emphasized in the heart of every physician who reads the volumes to which we refer.

One of these books* is a new edition of a collection of medical essays published by Dr. Holmes more than twenty years ago. It includes his "Homœopathy and its Kindred Delusions," "The Contagiousness of Puerperal Fever," "Currents and Counter-currents in Medical Science," "Border Lines of Knowledge in some Provinces of Medical Science," "Scholastic and Bedside Teaching," "The Medical Profession in Massachusetts," "The Young Practitioner," "Medical Libraries," and "Some of my Early Teachers." The essay on the "Mechanism of Vital Actions" has been omitted—not suppressed, but transferred to a separate collection of essays.

The author's renown in general literature has for many

years so overtopped his position in medicine that few, especially among the rising generation, have been accustomed to couple his name with the advancement that has taken place in medical science. Such a reminder as this volume constitutes was needed, therefore, to make the younger members of our profession realize how great and many-sided a man they might truly claim as their colleague by a title more emphatic than the common possession of the degree of M. D. But it is not on this ground solely that we welcome the appearance of the book; apart from the matter of sentiment, its substance has such a positive scientific value that no man who wishes to master the subjects it treats of can fail to profit by reading it. Indeed, we know of but few works better calculated to temper and refine the realistic results of the methods of medical study now in vogue.

Scarcely less to be prized by men of our profession, although not so strictly medical in its scope, is the second of the two books to which we have alluded.* Those who have known Professor Holmes only by his contributions to general literature can hardly have failed to feel a desire to know more of the man, of his origin, of his career, of his personal experiences, than he has chosen to unfold in his own productions. How much greater must that desire be with us of the medical profession, seeing that he has been of our number, and that he now goes forth from among us, yet not, we may fondly say to ourselves, wholly cut adrift from us!

Mr. Kennedy's delightful portrayal of Professor Holmes as a literary man and as a student and teacher among those of our craft comes as a fitting complement to the second view now given us of Holmes's actual work in medicine.

PROFESSOR CHANDLER, THE BUTCHERS, AND THE BOARD OF ALDERMEN.

WHEN Professor Chandler lately allowed it to be understood that he was willing to serve another term as a member of the Board of Health, the general feeling among the profession in New York was that of satisfaction that a gentleman so conversant with sanitary administration and so energetic as he had shown himself to be might be secured to continue the work of the Board of Health in the manner that has in the main heretofore characterized its action. This feeling was mingled with forebodings, however, that Professor Chandler's renomination, in case it should please the Mayor to make it, would not suit our fastidious Board of Aldermen.

We regret to have to record that these forebodings have been justified. Last week Professor Chandler's name was sent in by the Mayor, and the Aldermen promptly rejected it. Such a thing has been conjectured at one time and another as that a subtler influence than anxiety to promote the public welfare occasionally played a part in determining the actions of the Board of Aldermen, and we have heard it hinted that such was the case in this instance. To be explicit: it is said

* "Medical Essays, 1842-1882." By Oliver Wendell Holmes. Boston: Houghton, Mifflin & Co., 1883. Pp. x-446.

* "Oliver Wendell Holmes: Poet, Littérateur, Scientist." By William Sloane Kennedy. Boston: S. E. Cassino & Co., 1883. Pp. 366.

that the butchers some time ago vowed that they would use their influence with their friends in the Board of Aldermen to defeat Professor Chandler's confirmation. Their grievance was, that he had insisted that cattle should not be driven through any of the city streets. In spite of their bloody calling, butchers are ordinarily a kindly set of men, not given to scheming or to brooding over injuries—even so gross an injury as an official impediment to the pastime of allowing wild steers to run amuck in the streets. That they should have so belied their distinguishing trait of jolly benignity in this matter calls to mind the old question: *Tantæne animis cælestibus iræ?*

THE PENNSYLVANIA STATE SOCIETY ON THE NEW YORK STATE SOCIETY.

The pointed resolutions adopted at the recent meeting of the Medical Society of the State of Pennsylvania, which we publish in another column, coupled with the fact that the mover of the resolutions was made president of the Pennsylvania society for the ensuing year, show that there is no abatement of the feeling of opposition with which our friends in Pennsylvania look upon the attitude of the Medical Society of the State of New York on the code question. Of like purport were the terms in which the outgoing president saw fit to speak of the matter in the presence of an assemblage made up in great part of non-medical persons. It is to be noted that the ethical question was not discussed on its merits, but that the act of "rebellion" against the American Medical Association was held up to execration.

Proceedings of Societies.

NEW YORK SURGICAL SOCIETY.

A STATED meeting was held April 10, 1883, T. M. MARKOE, M. D., President, in the chair.

RUPTURE OF THE TENDON OF THE QUADRICEPS EXTENSOR CRURIS ON EACH SIDE.—Dr. L. A. STIMSON presented a patient with the following history: He was a rather small, spare man, fifty-eight years old, who had always been healthy. Ten years ago he slipped while walking, fell backward to the ground, and found himself unable to use his right leg. He had broken the tendon of the quadriceps, apparently at its junction with the patella. The knee became at once painful and swollen, and he remained unable to walk for four weeks. During the following six months he walked with a cane, and noticed disability of the limb when going up or down stairs, finding himself unable to support his weight upon it when the knee was partly flexed. After the expiration of the six months he discarded the cane, and considered the limb about as good as ever; he could carry a load of from fifty to seventy-five pounds upstairs in the usual way, taking the steps with each foot alternately, and not aiding himself with his hands. He says the appearance of the knee differed from what it was before the injury; that there was a depression above the patella, and the anterior edges of the condyles were prominent.

Three years afterward (1876) he broke the tendon of the left quadriceps by a similar slip and fell backward. It was

treated in the Chambers Street Hospital by rest in bed, with the limb bandaged upon a posterior splint. The knee was swollen and painful for three weeks, and more or less stiff for six months afterward. Then he resumed work as a porter, and worked steadily until January, 1883, his right leg being all this time stronger than the left. His duties frequently required him to carry loads of from fifty to one hundred pounds on his shoulders. In walking, he kept the knees almost perfectly straight, and occasionally he fell heavily, this happening whenever he slipped and bent the knee. In going up and down stairs, he always aided himself with his hands on the banisters; he says he was always fearful lest he should fall, yet he carried weights, and even climbed ladders. He could not rise from a sitting posture without aid unless the seat was so high that the knees were extended.

Early in January, 1883, the right knee joint suppurated from unknown cause, and he entered Bellevue Hospital. The joint was opened in the median line above the patella, drained, and immobilized. The discharge ceased about the end of February.

His present condition is as follows: *Left Knee.*—When the knee is flexed nearly to a right angle, the anterior surface and edges of the condyles are very prominent, and the patella lies below, leaving a deep sulcus above it between the condyles occupied only by skin and cellular tissue; this skin is rather closely bound to the condyles, so that it does not move upward so freely as the patella. The patella can be raised from the condyles, and the finger pressed between it and them from above to the distance of nearly an inch by pushing the skin before it. The quadriceps is atrophied to such an extent that the femur seems almost subcutaneous in front.

The power of active extension is entirely lost. Even when the leg is hanging straight down, with the knee slightly flexed, the foot can not be moved forward in the least, except by swinging it.

Right Knee.—Still somewhat swollen, and the soft parts indurated. The patient says that its appearance before the supuration in January last was almost exactly the same as that of the left knee. The quadriceps is not so completely atrophied as the left, and the patient says the right has been the better limb of the two.

He walks now with one crutch, taking short steps.

Dr. R. F. WEIR said that he had just finished treating such an injury in a very heavy man who tumbled in the usual way without striking his knee, but the rupture was different from that illustrated in Dr. Stimson's case. He had met with two varieties of ruptures: one where the tendon was torn entirely across, and the other where only the central portion was ruptured. In his recent case the central portion was involved, and, by drawing the muscle down by strips of rubber adhesive plaster and immobilizing the joint, he was able to get a very good result, so that the patient was able to throw the leg forward and go upstairs without difficulty. He had seen, a few years ago, one case in a woman where the tendon was apparently divided completely across, but there was some power of extension, showing that it was not entirely separated.

In cases of ruptured quadriceps, attempt had been made to reunite the parts by sutures under antiseptic precautions, but the results had not been sufficiently encouraging to warrant repeating the operation. Better results and greater security had been obtained by immobilizing the joint with the posterior splint.

Dr. LEROY M. YALE had seen a case in which the tendon had been torn and the patella dislocated laterally by the limb being caught between a cask and the side of a house. The use of the limb was impaired as long as the gentleman lived. The patella,

however, made for itself a new point of adhesion at the side of the joint, and the condyles were exposed by so much as the patella had been displaced by the dislocation.

Dr. CHARLES T. POORE remarked that he had already reported a case to the society in which rupture of the quadriceps had taken place, and the separation was four inches, which was finally reduced to about three inches. The rupture was complete. The ultimate result was that the patient had perfect use of the limb (flexion and extension), and walked without a limp.

EPITHELIOMA OF THE EYELIDS, NOSTRIL, AND SIDE OF THE FACE.—Dr. A. G. GERSTER presented a patient, sixty-four years old, illustrating the final result of the removal of an extensive epithelial cancer which had its commencement at the outer canthus of the right eye. The disease had gradually, in the course of several years, involved the upper and lower eyelids, the entire conjunctiva, a considerable portion of the superior maxilla, the cheek, and the right nostril. When the patient first came under his observation, in September, 1881, Dr. Gerster, with a great deal of difficulty, succeeded in exposing the eye, and found the cornea ulcerated and in part covered with cicatricial tissue. The patient was entirely unable to move the eyeball, and Dr. Gerster suspected involvement of the orbital tissue. The patient insisted on getting rid of this offensive ulcerating mass, and, when Dr. Gerster had made the necessary incisions, he found that the tissues occupying the posterior portions of the orbit were not involved at all. The case, therefore, was not so hopeless as it seemed to be before the orbit was opened. The eye, all the orbital fat, a portion of the superior maxilla, a part of the skin of the cheek and forehead, both eyelids, and a portion of the right nostril were removed. The defect following the operation was enormous, and it was very incompletely repaired by the process of cicatrization and contraction; and finally, in January, 1882, he proposed a plastic operation with a view to remedying the disfigurement as far as possible. To do this he raised two large flaps from the forehead, using one for the formation of the lower eyelid and cheek, and the other for the formation of the right nostril. He cut both flaps intentionally in an oblique direction, in order to make them as long as possible. A small part of the flap out of which the nostril was formed sloughed on account of the pressure of the adhesive-plaster plug placed in the newly formed nostril, which, however, looked very satisfactory.

Having obtained union of the two flaps, he still had considerable redundant pedicle. The redundant part of the pedicle used for the nostril was separated three weeks after the former operation, and, being attached by sutures to the skin of the forehead, served to form an upper eyelid. This subsequently was drawn deep into the orbit, thus forming a sort of lining for the roof of the cavity, and the cicatricial contraction thus exerted had the effect of smoothing off the unseemly protuberance caused by the rotation of the pedicle. The redundant tissue of the other flap was also cut away and put back into the defect caused by its original removal, where it helped to hasten the final healing of the wound. The ghastly deformity having been reduced to a small granulating space occupying the apex of the orbit, the patient was enabled to get along well with the aid of a small bit of black silk placed over the orbit as a protector. So far, no relapse of the disease had appeared.

THE WEAK POINTS IN A LISTER DRESSING, AND THE ADVANTAGES OF CORROSIVE SUBLIMATE AS AN ANTISEPTIC.—Dr. ROBERT F. WEIR read the following paper:

It must be admitted by the most devoted of the advocates of Listerism that the dressings, applied with the strictest attention to all the details of this system, not infrequently fail in controlling the progress of putrefaction. This is the case not

only in a severely lacerated wound, but also, at times, in a comparatively simple one. It is difficult in all cases to explain why this should be so; in some, no doubt, some error in the technique may have been committed by the surgeon himself; in certain other cases it must be assumed either that the antiseptic itself, i. e., the carbolic acid, is at fault, or has been wrongly applied, or that the dressings themselves are imperfect in construction. In connection with these two points considerable vagueness has been encountered. According to Mr. Lister, who started with a solution of one part of the acid to 100 parts of water, the solutions to be employed now are, for the instruments, hands, etc., 1 part to 20; for the spray, 1 to 30; and for the sponges, etc., 1 to 40. Why should such diversity exist? What strength, in other words, is necessary to arrest or destroy bacteric life in a wound? Clinical experience has generally settled on the range of strength given by Lister, to wit, two per cent. to five per cent. of the acid. But the application of laboratory tests does not apparently accord with this conclusion. For instance, in an article by De la Croix,* it is stated that ten per cent. of carbolic acid is required to destroy bacteric life, and, in the very careful and much to be admired investigations of Koch (Koch, p. 242), it is likewise recorded that ten-per-cent. solutions of carbolic acid are necessary for safe or sure disinfection, and that the anthrax spores are destroyed in a forty-per-cent. solution only after three days, and in a five-per-cent. solution only after two days' immersion. These statements have been widely quoted, and have much embarrassed observers by their variance with clinical work. But, on reference to the articles themselves, and particularly to that of Koch "On Disinfection," published in the reports of the Imperial Board of Health for 1881 ("Mittheilungen aus dem kaiserlicher Gesundheitsamte," Berlin, 1881), there will be found a reason for the discrepancy. It consists in this, that the experiments have purposely been conducted upon the *spores* of the anthrax bacillus as being the most resistant to disinfectants of all such micro-organisms. These spores are much more difficult to affect than the bacilli themselves. To show the influence of weaker solutions upon the bacilli themselves, a number of tests were applied by Koch by soaking silk thread in the juice expressed from the spleen of a mouse affected with anthrax bacilli, and then wetting them with one-, two-, three-, and five-per-cent. solutions of carbolic acid for periods varying from two, five, ten, fifteen, to twenty-five minutes. After these had been placed in a gelatine culture-glass no signs of development occurred, showing that all life had been arrested. In the central preparation, however, of the same impregnated threads which had not been dipped in the carbolic solutions, there were to be found in the gelatine culture-glasses marked development of bacilli, and even of spores. Again, a one-per-cent. solution of carbolic acid, with an equal quantity of anthrax blood, injected into a second animal, proved innocuous, but a one-half-per-cent. solution failed to neutralize the poisonous blood. Similar observations were carried on in respect to less obdurate micro-organisms, including the micrococci found in septicæmia; and, from a large experience gathered in this manner, Koch formulates the statement that carbolic acid in one- to five-per-cent. watery solutions is a good disinfectant for those organisms which have not passed into the *dauer-form* or the condition of spore growth, and that 1 part to 400 of water—i. e., one quarter per cent.—must be *permanently* present to control life in the bacteria met with in wounds. Note carefully here the use of the words "permanently present," and it must also be remembered that to produce this condition stronger solutions are of necessity to be employed.

More recently these experiments have been repeated with a

* "Arch. f. Pathol.," Bd. xiii, Heft 3 and 4, 1881.

corresponding result by Dr. Sternberg, United States Army ("Experiments to determine the Germicide Value of Certain Therapeutic Agents," G. M. Sternberg, "Am. Jour. of the Med. Sci.," April, 1883), who has found, by the test of flask culture in reference to carbolic acid, that a 0.2-per-cent. solution of this acid would so act upon septic micrococci as to prevent development, but that a stronger solution was required for the micrococcus of ordinary pus. This observer, reiterating the remarks of Koch that the resisting power of reproductive spores is far greater than that of bacterial organisms in active growth (multiplication by fissure), says that the quantity of carbolic acid to be used as a germicide should not be less than five per cent., for it is necessary, he wisely states, to keep on the safe side, since we do not know whether all of the pathogenic bacteria form spores or otherwise.

These considerations, which might be extended by detailing more at length the steps of the various experiments, or by quotations from other observers, are sufficient to explain the satisfactory results that follow the present use of carbolic acid in the treatment of wounds, and to show us that the antiseptic has in the main hitherto been rightly used. In looking further for the causes of error, some may, perhaps, be found in the imperfection of the dressings. Tests of the strength of the gauze employed revealed to me, in January, 1880, that the strength of this part of the dressing varied much with its age. Gauze impregnated after Lister's formula, and kept in a tight box wrapped up in rubber cloth, gave, at the end of three months, 1.44 per cent. of carbolic acid, and another specimen, similarly prepared and preserved, showed, at the end of three weeks, 1.82 per cent. These observations have been confirmed by Kopff, who found, on the second day after gauze had been impregnated according to Lister's and Bruns's method, that the former contained 2.61 per cent., and the latter 5.62 per cent. In the gauze sold in the shops only 0.5 per cent. of carbolic acid was found. The gauze, when used, therefore, should be freshly prepared, for which purpose Bruns's formula is the best. (Resin, 400 gr.; carbolic acid, 100 gr.; castor-oil, 80 gr.; alcohol, 2 litres.) Another possible cause of failure in an antiseptic dressing is encountered in the catgut ligature. Made, as it is, from the intestines of a sheep, it is not to be wondered at that the possibility of infection thereby should have been considered. Few, however, have been the facts that confirm such a suspicion. Koch calls attention to this, and De Lanti ("Arch. gén. de méd.," March, 1883) more recently repeats this caution, and quotes Zweifel, of Erlangen, who believed the catgut to be a cause of infection in wounds. Kocher, of Berne, also furnishes a case where apparently the septicæmia was due to this cause, and Volkmann reports two cases of malignant pustule from the inoculation by means of anthracised catgut ("Deutsche Zeitschrift f. pract. Med.," No. 18, 1877). In investigating this point, Koch has proved, by careful experiment, that solutions of carbolic acid in oil or alcohol are absolutely inert in respect to their action on bacteric life, either on the spores or bacilli. He took solutions of one and five per cent. carbolic acid in oil, also pure oil itself, and tested them with the anthrax bacilli and other micro-organisms, and proved that bacteric life was arrested in the pure oil at the end of six days; the same took place in each of the carbolized solutions. The same, moreover, occurred in the experiments when the bacilli were exposed to the air on gelatine. In other words, no influence was exerted by carbolic acid when mixed with oil. The bacilli lived as long in oil and oily solutions as in the conditions of culture. When the spores, however, of the anthrax bacillus were introduced in the carbolized-oil solution, reproduction could be accomplished after three months' immersion. The same results were met with in oily solutions of thymol and salicylic acid. In explanation of the antiseptic action of carbolized

oil as a wound dressing, Koch, however, remarks that, "when it came in contact with substances containing water, as, for instance, the tissues of the human body, wounds, etc., then it undoubtedly gave up part of the acid to these, and in this way an antiseptic effect might be obtained. But this holds good only in cases where aqueous fluids came in contact with the oil. In all other instances where dry substances, such as silk, catgut, instruments, etc., are to be disinfected by carbolic oil, not the least antiseptic effect is to be expected even upon the most vulnerable micro-organisms." These investigations, it may be added, have been fully confirmed by those of Wolfhügel and Knowe in the same volume of reports. Kocher, of Berne (already quoted), also made sundry experiments bearing on this point. This surgeon placed ordinary catgut, with all the customary precautions, in sterilized fluids, which became turbid from bacteric development within twenty-four hours. He also found that if the catgut was steeped for twenty-four hours in the oil of juniper, and kept in 95 per cent. alcohol, it would not develop bacteria in sterilized fluids. I do not know of any experiment that will determine whether the chromic acid used to render the catgut ligatures more durable makes them at the same time antiseptic; but we have information relative to sulphurous acid which will be somewhat startling to the surgeons in this city who have relied upon this gas as a proper disinfectant for their contaminated hospital wards. Two investigators, Koch and Wolfhügel, pronounce decidedly against sulphurous acid in gas and in watery solution as a disinfectant, i. e., as an arrester of bacteric life. Koch says no real value can be claimed for it, and in none of the experiments instituted with it did it succeed in destroying all the germs present. The reliability of the tests of Koch and his assistants should attract attention to this point, as not only is this agent largely employed here in hospitals as above alluded to, but it is likewise recommended to the public by our health boards for disinfection after scarlatina, diphtheria, and other contagious diseases. I may remark, in passing from this portion of my subject, that the most reliable disinfectant for closed spaces was found in bromine, and ranking a little lower was the less expensive chlorine.

Returning to the catgut, it must be admitted that while thus open to the suspicion of a septic, yet the daily experience of surgeons has taught that its principal defect was in its unsatisfactory insolubility. Since the addition of chromic acid and sulphurous acid to it, its durability in the tissues has been too much increased, and though the latter acid has permitted the catgut to be kept in a dry state, and the oil thus avoided, yet I have found that it will not dissolve for from twenty to thirty days, and that it acts often as a foreign body. Weakening both the acids has improved it somewhat, but my experience in this line has not been sufficient to speak yet with positiveness.

The probing of scientific research has in this way revealed to us some of the weak points of the carbolic dressing. But, notwithstanding this and the earlier condemnation of the spray by Trendelenburg, Bruns, Mikuliez, Wernich, Duncan, and others—a verdict which is, however, not accepted by Lister, Nussbaum, Rydygier, Shiene, and their followers—Lister's dressing has remained until very recently the best for surgeons to employ, though other antiseptics, notably iodoform, have given very satisfactory results in other hands. The volatility of the former antiseptics and the toxic properties of both those named were decided disadvantages.

Very lately an old remedy has appeared in this rôle as an antiseptic. This is the corrosive sublimate, or the old bichloride of mercury, the mercuric bichloride of the new nomenclature. My first experience with this salt as a wound dressing was obtained after reading an excerpt from the article of De la Croix, in which it was stated that corrosive sublimate in the propor-

tion of 1 part to 2,525 parts of water was an efficient germicide¹ being 250 times more powerful than phenol or carbolic acid. With these imperfect data, I used it in the spring of 1882. I used it in 1 part to 2,000 of water as a dressing to three compound fractures of the thigh, and six of the leg, with very satisfactory results; so much so that, when I resumed my service in the New York Hospital in November last, the dressings were continued, but with some slight modifications. These were, first, that it was found that the strength was insufficient, active bacteric life being at times found under the dressings, and also from the fact that a perusal of the large experience of Kümmel and Schede, of Hamburg, showed that a stronger solution was required, and that it was free from the risk of toxic effects, for, in over 200 cases presented by Kümmel, in only 2 were there any constitutional symptoms observed, and then only a slight salivation. This surgeon says of the sublimate dressing, that the healing of wounds is accomplished with a certainty and uniformity unknown under the strictest Lister dressing; and in 212 extensive wounds as recently treated by the sublimate solution and peat dressing by Esmarch and Neuber, who recommend it strongly, there was no poisoning, and only three deaths. In the number were 30 major amputations, 32 resections and osteotomies, 5 herniotomies, 14 cases of nerve stretching, etc. In only 11 cases was the dressing changed more than once. Bergmann, whose experience with this remedy has also been large, also lauds it. My own observation of the efficacy of the sublimate dressing after I had properly achieved the correct method of using it is but comparatively slight, embracing four cases of necrosis of the foot and tibia, one amputation at the hip joint, one amputation of the thigh, one amputation of the leg, one amputation at the knee, one amputation of the breast, two removals of tumors, one fixation of a movable kidney, one extensive laceration on upper thigh (death on the twelfth day of septicæmia), one subdeltoid bursa, three compound fractures of leg, with recovery excepting the one above noted. In two of the compound fractures an aseptic condition was not preserved. In one of these the solution was too weak—1 in 2,000. In the other a 1-400 peat dressing was used, although by error solutions of 1-100 were several times resorted to. No special local effects were produced beyond in one instance slight pustulation of the adjacent skin. No constitutional effects were noticed in any case.

Let me hastily indicate the mode of employment of the dressing. Carbolic-acid solutions are used by Neuber, Kümmel, and Bergmann for the spray and for the instruments, and sometimes for washing out the wound. The sponges and compresses are wet with a solution of the sublimate, 8 grains to the pint (solution No. 1). Silk, if used for sutures, etc., is dipped for two hours in an 80 grain to the pint solution, and then permanently kept in the 8-grain solution. Catgut, as used by Kümmel, is made by immersing it in an 80-grain solution to the pint for twelve hours, and then is wound on bobbins and kept in an alcoholic solution of 20 grains to the pint, with one ounce and a half of glycerine added.* The gauze is prepared by immersion in a solution of 20 grains to the pint of alcohol and one ounce and a half of glycerine. Drainage is accomplished by rubber tube or by spun glass, twisted or plaited. If sand is used as an absorbent, after being heated in a crucible, it is mixed in the proportion of one pound to one drachm of sublimate, dissolved in two ounces and a half of sulphuric ether. The sublimated sand is put in bags of various sizes, from 12 to 40 centimetres

* The catgut dissolves too quickly in a wound; since recently proved more satisfactory. When after the corrosive impregnation had been secured, the gut was dipped for two hours in a 1-1,000 chromic acid, then dried, and kept in this state for use.

square, which have previously been washed in green soap and soda, rinsed, and finally dipped in the 8 grain to the pint solution. Peat, saw-dust, and other absorbents are also employed* according to the judgment of the surgeon. It has been found in my wards that while pine saw-dust has absorbed readily, yet a disagreeable sour odor was often noticed, even when the underlying wounds were doing perfectly well.

A few words more will complete these necessarily incomplete remarks. The experiments of Koch evidently excited the surgeons of Hamburg, Würzburg, and Kiel to the use of the mercuric bichloride as a surgical dressing, and, as the results of this able investigator have not been very widely disseminated on this side of the Atlantic, I beg to summarize them here. After applying a number of tests similar to those employed in connection with a number of so-called antiseptic disinfectants (a partial list of which is here appended), he found that simply moistening the anthrax spores (the most resistant of all, it will be remembered) in a solution of 1 part of corrosive sublimate to 5,000 of water destroyed them thoroughly and immediately, and the destruction would equally happen if they are immersed for a longer time in solutions as weak as 1 to 20,000. He then says that the sublimate is the only known disinfectant which succeeded, by a single application of a few minutes of a solution of sublimate of 1 part to 1,000, in destroying the most resistant micro-organisms. He also furnishes us with a test as to the strength required in a wound dressing. There should be present in a dressing an excess of corrosive sublimate equal to 1 part to 5,000. This will be readily recognized by leaving a thin strip of polished copper for half an hour in the dressing. If the excess is present, an amalgam will show itself. This seldom occurs in a 1 to 10,000 solution.

Naturally, with so potent a bacteric arrester, the idea comes into birth, Can not the internal administration of this remedy be utilized in germ diseases? Koch's experiments in anthracised rabbits by injecting sublimate solutions, however, were negative. Sternberg, estimating the blood in an adult of one hundred and sixty pounds to be twenty pounds, ascertained that the quantity of corrosive sublimate required to affect this amount of blood would be 3.5 grains. I believe that, although one grain per diem is the maximum quantity which could be administered for several days, a cumulative effect might be produced by its use sufficient to exert some restraining influence on the development of micro-organisms when in the system.

Taken from Koch and Sternberg's papers, the annexed tables give an interesting *résumé* of the germicidal power of a number of agents, some of which have wrongly been relied upon:

TABLE I. (From Koch.—"Mittheilungen aus der kaiserlichen Gesundheitsamte," Berlin, 1881.)

Corrosive sublimate, 1 per cent. in water, destroyed all bacteric life in.....	1† day.
Permanganate of potassium, 5 per cent., destroyed all bacteric life in.....	1† day.
Permanganate of potassium, 1 per cent., no effect at end of.....	2 days.
Osmic acid, 1 per cent.....	1† day.
Turpentine, oil of.....	5† days.
Chlorine water, freshly made.....	1† day.
Bromine, 2 per cent.	1† "
Iodine water.....	1† "
Chloride of lime.....	5† days.
Chloride of iron.....	6† "

* The absorbing power of turf is 80 parts water; saw-dust (pine), 55 parts; cedar, 44; tan, 23; sand, 14.

† Life destroyed totally.

Iodine in alcohol, 1 per cent., hindered growth only.	
Arsenic, 1 per cent.....	10* days.
Sulphurous-acid water, very slightly efficacious.	
Sulphuric acid, 1 per cent., growth hindered in....	10 "
Quinine, 1 per cent.....	10* "
Boric acid, 5 per cent., practically unreliable; spore growth only hindered in.....	6 "
Borax, 5 per cent., no effect at end of.....	15 "

TABLE II. (From Sternberg.—"Am. Jour. of the Med. Sci.," April 1883.)

VALUE OF GERMICIDE.	
Mercuric bichloride, 1 part in.....	20,000
Potassium permanganate, 1 part in.....	833
Iodine, 1 part in.....	500
Creosote, 1 part in.....	200
Sulphuric acid, 1 part in.....	200
Carbolic acid, 1 part in.....	100
Hydrochloric acid, 1 part in.....	100
Zinc chloride, 1 part in.....	50
Tincture of chloride of iron, 1 part in.....	25
Salicylic acid dissolved by sodium borate, 1 part in...	25
Boric acid, no value.	
Sodium borate, sat. sol., no value.	
Sodium hyposulphite, no value.	

Dr. GERSTER said he had used ligatures prepared after Kocher's method, by the use of oil of juniper, almost exclusively since September, 1882, and in not a single case had suppuration undoubtedly been caused by the ligatures. So far as manipulation of the material so prepared was concerned, it was very agreeable to handle. It was hard and firm, especially if it had been kept for some time in ninety-five per cent. of alcohol, which apparently had the effect of toughening the substance; it tied very nicely, and was not absorbed too soon. He had used it for ligating the large vessels, and with excellent results. As a suture it answered very well, and lasted longer than the carbolized suture of Lister.

He had also employed Bruns's gauze in the German Hospital, the Mt. Sinai Hospital, the German Dispensary, and in private practice. The original method of preparation by the use of alcohol as a solvent made the material very expensive, and, with the co-operation of the druggist, he finally succeeded in finding an excellent solvent in benzin, which, during the last four years, he had been using exclusively. Contrary to what was at first suspected might occur, the benzin had not affected the skin unfavorably, and the cost of the gauze prepared in this way was very considerably less.

Dr. WEIR remarked that he had made experiments four years ago with benzin as a solvent, and had found, in corroboration of the statement made to him by Dr. Squibb, that the evaporation of this solvent was so rapid that it carried off with it an undue amount of carbolic acid held in solution. Therefore, the gauze and jute prepared with benzin very rapidly deteriorated, and it gradually fell into disuse in the New York Hospital and other institutions where it had been employed.

NEW YORK OBSTETRICAL SOCIETY.

A STATED meeting was held March 6, 1883, Dr. C. C. LEE, President, in the chair.

The minutes of the previous meeting were read by the secretary and approved.

COMBINATION OF HARD AND SOFT RUBBER PESSARY.—Dr. J. B. HUNTER presented the instrument, which consisted of an upper soft rubber bow attached to the lower portion, which was made of hard rubber, thus combining the advantages of elasticity in

the former with the innoxious qualities of the latter. Hard and soft rubber could now be welded perfectly.

PLASTER-OF-PARIS PESSARY.—Dr. B. F. DAWSON stated that he wished to record that he had made use of plaster of Paris, molded within the vagina, with the most decided success, in two cases of displacement of the uterus. The first case was that of a woman suffering from anteversion and a very aggravated prolapse of the left ovary. She was placed in the knee-chest posture, and pledgets of absorbent cotton, each with a string attached, soaked in a mixture of plaster of Paris and water of about the consistence of gum and partially squeezed out, were placed in the posterior fornix of the vagina and around the vaginal portion of the cervix, and held in position. The vagina was then cleaned out, in a few moments the cast had hardened, and the patient went away with instructions to withdraw the instrument should it cause pain. When she came back at the end of three days she said she had experienced great relief. On removing the plaster pessary, the mucous membrane with which it had come in contact, instead of being irritated, as one might have expected, was found to have been benefited by its presence; it was firmer and less irritable than before, and the prolapsed ovary had evidently been sustained. The second case was one of retroflexion, in which the pessary acted not only as a harmless agent, but seemed to give all the uterine support desired. The instruments were removed, placed in fire to burn out the cotton, and dipped into wax or paraffin for the purpose of making them impervious to the secretions and to render them more durable. This method of supporting the uterus commended itself for the facility with which it could be applied, for cheapness, and for accuracy of adaptation.

DOUBLE OVARIOTOMY, WITH FIRM ADHESIONS TO THE UTERUS.—Dr. HUNTER operated on a girl on the 5th of February for what was supposed, by himself and others who examined the patient with him, to be a single ovarian cyst, but, upon cutting through the abdominal walls, the tumor was found to be double, and firmly attached to the uterus, which lay in front of it. The contained fluid had the appearance of decomposed blood, but was not offensive. Some escaped into the peritoneal cavity, but was washed out, and the patient made a perfect recovery after a sharp attack of peritonitis. The pedicle was cauterized with the hot iron. Dr. Hunter also referred to a case, operated upon on the 24th of February, in which the tumor, which was single, was firmly attached to the uterus. The patient made a good recovery.

In corroboration of Dr. Hunter's remarks on the value of the hot-iron cautery applied to the broad pedicle, the PRESIDENT referred to a case in which neglect to use it was probably the cause of the patient's death. Early in October last he operated in a case in which the cyst had formed such close adhesions to the intestines and pelvic organs that its detachment was unavoidably attended by a large amount of oozing. After a double ligature was applied to the base of the cyst, the abdominal cavity was sponged out thoroughly, but within three days afterward the patient manifested symptoms of septic peritonitis, and it was decided to open the wound and remove any fluid that might have been the source of poisoning; none, however, was found. The patient died of peritonitis; but probably, had all oozing been checked in the first place by the application of the hot-iron cautery, the fatal result might have been avoided.

Dr. HUNTER remarked that a case was reported by Dr. McFarland in the last number of the "Canadian Practitioner" in which a tumor firmly attached to the uterus was torn off, causing a good deal of hæmorrhage, which, however, was checked by the hot iron, and the patient recovered. Dr. Hunter considered this the best way of checking hæmorrhage from wounds of the uterus in such operations.

* Life destroyed totally.

The PRESIDENT remarked that many years ago, before ovariectomy was extensively performed in London, Dr. Baker Brown was in the habit of making use of the hot-iron cautery in all cases, whatever other means might be resorted to for checking hæmorrhage. Since his time an earnest advocate of the method was Keith, of Edinburgh. The President thought that, if it were more commonly employed by ovariectomists in this country, the percentage of recoveries would be greater. He had never known a case of recovery from laparotomy in which the persulphate of iron had been used as a hæmostatic.

Dr. DAWSON had used the heat cautery in a large number of operations of various kinds with very favorable results, and he thought one advantage which it possessed over other caustics was the fact that the vitality of the deeper tissues was not affected, and that the superficial charred surface was comparatively innoxious.

Dr. H. J. GARRIGUES remarked that Keith used the actual cautery alone, without the application of a ligature.

Dr. Garrigues reported in writing a case of labor in which the head, hand, foot, and cord presented. [It will be given in a future number of the journal.]

Dr. W. R. GILLETTE remarked that he saw nothing special to discuss or dispute in the paper presented by Dr. Garrigues. The position of the fetus was not a unique one, and the method for its delivery was that which had been for years recommended, and which experience was daily showing to be the only proper method for relieving such cases. The practical point in the doctor's paper seemed to be a forcible reiteration of the statement that it is always better to make traction upon the foot most distant in version. By taking this foot, the child is made to describe the largest possible arc of a circle, and the danger of wedging when the near foot is taken is thoroughly obviated. This is the secret art in easy, successful version cases; and, if all obstetricians would take the time in version to seek for the foot farthest away, they would have less difficulty in version, and the dangers laid down by the old authorities in accomplishing version would be entirely obviated. Dr. Garrigues's case reminded the speaker of one, which he once saw in consultation some years since, where three medical gentlemen had been endeavoring to deliver a woman for hours, without success. The neck, right foot, right arm, and cord were presenting. The physicians in attendance had succeeded only in rupturing the perinæum and tearing the urethra, which hung in a mass beneath the pubes, resembling the clitoris, and otherwise inflicting injuries which afterward resulted in her death. They had made this same fatal mistake, and had been pulling down upon the near foot until they had so complicated the presentation that it seemed utterly impossible for them to deliver. They looked upon the case as one of monstrosity, and were certain that this was the condition which would be found. Examination proved that there was no monstrosity, but that simply the right shoulder had originally presented; and, in their attempt to deliver, they had seized the right foot and so changed the presenting part, and finally left it with the conditions as related above—namely, the neck, arm, right foot, and cord within reach of the examiner. By simply replacing the right arm, and seizing the opposite foot, delivery was accomplished without difficulty.

Simpson was the first one to lay down this rule in version; and since that time it had been the practice with most obstetricians. The philosophy of the mechanism of version performed after this method had been very accurately and vividly portrayed in Barnes's work on "Obstetric Operations."

With regard to the further point in the doctor's paper regarding the indications for the use of the forceps in such cases, he did not think any positive rules could be laid down. One

must be governed by the circumstances attending each individual case. He believed that, where the os was dilated, version was fully as safe as, and even safer than, the use of the forceps. The older writers had laid too much on stress up the dangers of version. In the case of a decomposing fetus, he certainly would hesitate to perform cephalotripsy until all other means of delivery had been tried and proved ineffectual.

The PRESIDENT believed that the dangers which attended version as pictured by the older authors must have been largely due to unhygienic conditions, for at the present day the procedure certainly was not followed by any such bad results as we had been taught to anticipate. He himself had never known it to excite metritis or endometritis.

HENRY J. GARRIGUES, M. D.,

B. F. DAWSON, M. D.,

FRANK P. FOSTER, M. D., *ex-officio*,

Committee on Publication.

MEDICAL SOCIETY OF THE STATE OF PENNSYLVANIA.

THE thirty-fourth annual meeting was held at Norristown on Wednesday, Thursday, and Friday, May 9, 10, and 11, 1883, Dr. WILLIAM VARIAN, of Titusville, President, in the chair.

After an opening prayer by the Rev. Mr. WEDDELL, of Trinity Lutheran Church, the roll of delegates was called by the secretary, Dr. WILLIAM B. ATKINSON, of Philadelphia. Dr. HIRAM CORSON, chairman of the Committee of Arrangements, gave an address of welcome, alluding to historical matters connected with Norristown and neighboring places. A report by the delegates to the American Medical Association was then read. The corresponding secretary, Dr. JOHN G. LEE, of Philadelphia, read a communication from the Chester County Medical Society, setting forth a plan for the preliminary examination of persons about to begin the study of medicine. The report was referred to a special committee. The treasurer, Dr. BENJAMIN LEE, of Philadelphia, mentioned the unsatisfactory provision made for storing the society's library, and moved the appointment of a committee, with power, to provide suitable rooms for library purposes in Philadelphia. Action on the motion was postponed.

THE STATE BOARD OF HEALTH BILL.—Dr. BENJAMIN LEE, chairman of a committee charged with the matter of promoting legislation to establish a State Board of Health, reported that the committee had taken pains that the bill presented to the present Legislature should be as free as possible from all objectionable features. It was made as brief as was consistent; its provisions were general rather than specific, and the amount of expenditures which it proposed was ridiculously small in comparison with the ends to be attained. The bill was introduced into both branches of the Legislature, and the committee held personal interviews with several members of the Senate and House of Representatives. They represented the advantage of the measure to the Commonwealth, and did everything in their power to have it passed. It was rapidly making friends in both houses when an amendment was offered proposing to recognize by name and to make it obligatory on the Governor to appoint upon the board the adherents of an exclusive dogma in medicine. This was met with opposition by the medical members of the Legislature, and the bill, after being subjected to a number of amendments, was finally lost. No previous bill on this subject had received so much attention, or had been so discussed. The committee felt confident that the seed thus sown would eventually bear fruit. The report was closed by an appeal to the members of the society and of the editorial fraternity to urge the necessity of a central sanitary supervision in the State,

and the saving of health, life, and wealth which would be effected by it. If this was done, there could be no reasonable doubt that success would crown the long-continued efforts of the society. The report was received and the committee was discharged.

ETHICAL RESOLUTIONS.—On motion of Dr. HENRY H. SMITH, of Philadelphia, the following resolutions were adopted unanimously:

Resolved, That the State Medical Society of Pennsylvania reaffirm its approval of and adhesion to the code of ethics adopted by the American Medical Association.

Resolved, That organized opposition, by local societies or by individual members, to the code approved by the medical profession of the United States is rebellion against the constituted authorities, and should be so treated.

Resolved, That the secretary be instructed to forward a copy of these resolutions to the Committee of Arrangements at Cleveland, for presentation to the Association.

WRITERS' CRAMP.—Dr. BENJAMIN LEE made some remarks on the affection known by this name, insisting that a distinction should be made between the spastic and the parietic forms of the disease. He showed certain mechanical devices for the relief of the affection, one of which consisted of a ball to be held in the hand, and another of the bracelet devised by Von Nussbaum, to either of which the pen was to be attached. The latter was especially suited to cases of the cramp-like form of the affection, since its action was to call the extensor muscles into play, those being the muscles really at fault, according to Von Nussbaum.

THE DURATION OF VACCINAL PROTECTION, AND THE EFFICACY OF REVACCINATION.—Dr. WILLIAM M. WELCH, of Philadelphia, read a paper on this subject, in which, after reviewing some of the early theories as to the nature of vaccinia, remarking upon their fallaciousness, as well as upon that of the implicit trust that was formerly placed in vaccination as a complete protective against small-pox, he demonstrated the perfect trustworthiness of revaccination as a supplementary measure. Facts were presented, drawn largely from the speaker's long connection with a small-pox hospital, that told materially against Mr. Marson's doctrine of the relation of protection to the number of insertions made in primary vaccination. The sooner we ceased to rely on a multiplicity of insertions, the better; the only safeguard was in repeating the operation after an interval, especially during adolescence. During all the twelve years of Dr. Welch's connection with the Municipal Hospital, he had never observed a fatal case of small-pox in a person who had been properly revaccinated. However, the more typical the original vaccination, and in particular the slower its course, the more lasting was the protection afforded. Hence, the use of animal vaccine, or of humanized lymph of early removes, was to be preferred, because, as was well known, the vaccinal lesion produced by it was slower and more thorough in its development than the lesion that followed the employment of a long humanized stock. Nevertheless, since ample temporary protection was afforded by a vaccinal lesion that passed through its evolution rapidly, the latter was to be preferred in cases of actual exposure, when it was an object to anticipate the development of variola, and thus prevent it.

THE ADDRESS IN MEDICINE.—Dr. JAMES TYSON, of Philadelphia, then gave the Address in Medicine, on MALARIAL HÆMATURIA. After giving a well-digested *résumé* of our knowledge of the pathology of the affection, Dr. Tyson stated that in the ordinary form of the disease he preferred the simple quinine treatment as a rule, reserving the use of mercurials as an adjuvant until it was shown in any individual case that quinine alone was not sufficient. Arsenic, alone or with iron, he had not found to be of any decided advantage in cases that had re-

sisted the use of quinine and mercury; nor had he been able to accomplish much more with ergot. Benefit was to be expected from the use of many of the natural astringent mineral waters, notably those containing iron and alum. Of late years, a malignant form of malarial hæmaturia seemed to have been more prevalent than before in the Southern States. It sometimes came on suddenly, with grave icteroid symptoms, adynamia, and coma. In the pathology, however, anæmia of the viscera was dominant, rather than congestion; the jaundice was hæmatogenous; and the urinary manifestation was a true hæmoglobinuria or hæmatinuria, following on the disintegration of the blood corpuscles. In this form, too, quinine must be relied on to break the paroxysm, and it might be given hypodermically. Free stimulation was also necessary, but the use of large doses of turpentine did not seem very rational.

NOTES IN OBSTETRICS.—Dr. R. L. SIBBETT, of Carlisle, read a communication, largely of a statistical and analytical nature, embracing his personal experience in the practice of obstetrics. In a case of difficult breech presentation, after decapitating, he was obliged to resort to the use of an implement made for the occasion by a blacksmith, in order to extract the head. In one case of precipitate labor, inversion of the uterus took place.

THE ARTIFICIAL FEEDING OF INFANTS.—Dr. HUGH HAMILTON, of Harrisburg, read a paper on this subject, in which he recommended a mixture of fresh cow's milk, alkalized with bicarbonate of sodium, and cream—the latter in the proportion of one eighth or one quarter.

LUNATIC ASYLUMS IN THEIR RELATIONS TO THE COMMUNITY.—Dr. R. N. CHASE, of the Norristown Asylum, in a paper on this subject, spoke forcibly of the improbability of truth in the sensational charges often made against asylum officials of retaining sane persons in custody. Individual cases were referred to in which the charges had proved utterly unfounded. There was, however, one great disadvantage consequent upon the cure of the insane: restored to reason and to marital relations, a person that had been insane was prone to hand the taint down to offspring that would have had no existence had this restoration not been effected.

In the discussion on this paper, several gentlemen testified that the American Association for the Protection of the Insane had no disposition to attach undue weight to such charges as Dr. Chase had spoken of, and one gentleman spoke from personal knowledge of the groundlessness of the charges in the Dixmont case. Others thought that, for reasons not connected with any discreditable motive on the part of asylum authorities, patients were detained in many instances long after a period when they would be better off at their homes. One speaker called attention to the frequency with which alcoholic poisoning was mistaken for incipient insanity, the individual being consequently sent to an asylum, where his name went to swell the figures of lunacy statistics, thus helping to lend prominence to the alleged increase of insanity.

SIMPLE METHODS OF TREATING CLUB-FOOT.—Dr. DE FOREST WILLARD, of Philadelphia, read a paper in which he dwelt particularly on the necessity and the efficiency of simple measures employed immediately after birth in cases of congenital club-foot. Manual manipulation, frequently repeated, was especially recommended. This should be attended to by the nurse. The use of adhesive plaster, various adaptable splint materials, immovable bandages, and elastic traction, would often result in doing away with the need of operative interference at a later period; at all events, the aggravation of the deformity would be prevented to a great degree, pending the proper time for such interference.

THE PRESIDENT'S ADDRESS.—At the evening session, the doors having been thrown open to the public, the President,

Dr. WILLIAM VARIAN, of Titusville, gave the annual address. After sketching the organization and early career of the society, and drawing attention to its services in promoting legislation relative to sanitary measures, he spoke of one work it had yet to do in that direction—to secure the establishment of a State board of health. He regarded the disposal of the dead by cremation as in every way the most appropriate and hygienic method. The subject of inebriate asylums was then touched upon, stress being laid on the insufficient length of time during which the patients were often kept under watch. State supervision was urged in the matter of the production of vaccine virus. The speaker's own preference was for humanized vaccine, after several years' trial of animal virus. He recommended that State medicine and hygiene should form a part of the regular curriculum in medical colleges. He then called upon the society to repeat its former expressions of disapproval of the action of the Medical Society of the State of New York in reaffirming its renunciation of the code of ethics of the American Medical Association, denouncing that action as unjustifiable and revolutionary.

THE NOMINATING COMMITTEE.—At the second day's session, after a prayer by the Rev. Mr. KIEFFER, of the Reformed Church, the announcement of the members of the Nominating Committee from the different counties was made, as follows: Adams, A. S. Knohl; Alleghany, T. G. Gelleser; Armstrong, K. L. McCurdy; Blair, W. R. Finley; Bradford, E. P. Allen; Buck, Joseph Foulke; Cambria, M. J. Donnelly; Centre, Philip S. Fisher; Chester, Edward Jackson; Clearfield, S. C. Stewart; Columbia, L. B. Kline; Crawford, G. O. Moody; Cumberland, R. L. Sibbett; Dauphin, Hugh Hamilton; Delaware, I. N. Curlin; Erie, J. L. Stewart; Fayette, Ellis Phillips; Franklin, John Montgomery; Huntington, A. B. Brumbore; Indiana, U. B. Easley; Jefferson, U. B. Gibson; Lancaster, J. A. E. Reed; Lackawanna, J. U. Gibbs; Luzerne, Louis Taylor; Lycoming, John W. Young; Mifflin, A. Rothrock; Montour, S. S. Schultz; Northampton, C. McIntyre, Jr.; Philadelphia, W. G. Porter; Schuylkill, J. S. Callan; Snyder, J. F. Kalmwell; Venango, S. Gustine Snowden; Warren, F. A. Slingart; Westmoreland, J. A. Fulton; York, U. S. Roland.

THE ADDRESS IN SURGERY.—This was read by Dr. A. CRAIG, of Columbia. The treatment of injuries, especially of fractures, formed a prominent topic of remark.

THE TREATMENT OF SCARLET FEVER.—Dr. E. O. BARDWELL, of Emporium, read a paper in which he stated his belief in the inadequacy of quinine as an antipyretic, and his preference for packing the patient.

DEFORMITY AFTER POTT'S FRACTURE.—Dr. E. A. WOOD, of Pittsburg, called attention to the mechanism by which a spreading of the malleoli apart, with consequent eversion of the foot simulating valgus, was sometimes witnessed in cases of injury at the ankle in which, with more or less fracturing of the lower end of the tibia or of the fibula, the prominent feature at the time was the outward dislocation of the foot. When repair appeared to be complete, the contour of the ankle might at first be all that could be desired, but walking was apt to induce the deformity alluded to, by forcing the astragalus against the outer malleolus.

TYPHILITIS AND PERITYPHLITIS.—Dr. WILLIAM PEPPER, of Philadelphia, read an important paper on this subject, dealing with it from a clinical standpoint, and insisting particularly upon careful treatment during convalescence.

THE THOROUGH REMOVAL OF CANCER OF THE BREAST.—Dr. SAMUEL W. GROSS, of Philadelphia, read a paper in which he recommended that the whole breast should be removed, together with its integument, the fascia covering the pectoral muscle, and any enlarged glands that might be found in the ax-

illa, even in cases where the growth was very small, and where the skin seemed quite sound. To this radical method of removal the speaker attributed his success in preventing a recurrence of the disease. Several patients were shown on whom he had done the operation, and the healthy state of the cicatrices was demonstrated.

THE TREATMENT OF PURULENT PLEURAL EFFUSIONS.—Dr. JAMES C. WILSON, of Philadelphia, referred to the joints in the diagnosis of empyema, and expressed his conviction that repeated aspiration, while it was often successful with children, could not be depended upon in the case of an adult. It was necessary to establish a fistulous opening; a spontaneous opening, either outwardly or into a bronchial tube, would not answer. It was best, on account of the dyspnoea, not to administer an anæsthetic at the time of the operation, but to trust to local anæsthesia by freezing the skin.

THE MEDICAL SERVICE OF LUNATIC HOSPITALS.—In a well-considered paper on this subject, Dr. CHARLES K. MILLS, of Philadelphia, urged the necessity of a more ample provision of facilities of a purely medical sort in the management of asylums, such as an increase in the force of the resident staff, the establishment of boards of consulting alienists, and the appointment of a pathologist at each institution.

VIVISECTION.—A communication was read from the American Anti-vivisection Society, asking attention to the matter of vivisection. It was referred to a committee, to report next year.

PROVISION FOR ANATOMICAL STUDY.—A resolution was adopted urging the Legislature of the State to pass the amended anatomy bill, now before the House of Representatives.

THE ARMY MEDICAL MUSEUM AND LIBRARY.—On motion of Dr. SAMUEL D. GROSS, of Philadelphia, a resolution was passed asking Congress to provide a suitable fireproof building in Washington for the Army Medical Museum and the Library of the Surgeon-General's Office.

OFFICERS FOR THE ENSUING YEAR.—The Nominating Committee reported the following list of officers for the coming year: President, Dr. Henry H. Smith, of Philadelphia; Vice-Presidents, Drs. Ellis Phillips, of New Haven; H. B. Vannalza, of Clearfield; J. M. Kerr, of York; S. S. Shultz, of Danville; Permanent Secretary, Dr. William B. Atkinson, of Philadelphia; Recording Secretary, Dr. Morris S. French, of Philadelphia; Corresponding Secretary, Dr. John G. Lee, of Philadelphia; Treasurer, Dr. Benjamin Lee, of Philadelphia; additional members of the Committee on Publication, Drs. Hugh Hamilton, of Harrisburg; James Tyson and C. S. Turnbull, of Philadelphia; Judicial Council, Drs. A. Rothrock, of McVeytown; G. O. Moody, of Titusville; William Pepper, of Philadelphia.

AN ADDRESS IN OPHTHALMOLOGY.—At the morning session of the third day, Dr. EDWARD J. JACKSON, of West Chester, introduced the following:

Resolved, That at each annual meeting the president appoint one member to deliver, at the next yearly meeting, an address on ophthalmology and its relation to general medicine.

Dr. W. S. LITTLE, of Philadelphia, moved to amend by adding otology and laryngology. After considerable discussion, the regular order of the day was demanded. The demand having been sustained, Dr. Jackson's resolution was laid over for the time being, but was subsequently passed.

THE ADDRESS IN PSYCHIATRY.—Dr. JOHN CURWEN, of Warren, delivered the address in psychological medicine. It was an interesting paper, dealing largely with the ætiology of insanity and of nervous diseases in general, their increasing prevalence and intractability, and the hygienic measures best suited to diminish the frequency of their transmission from generation to generation.

The address was followed by a number of voluntary papers. For lack of space, we can only mention their titles, as follows: "The Diagnosis, Prognosis, and Treatment of Mitral Constriction," by Dr. J. T. Eskridge, of Philadelphia; "Lithæmia," by Dr. James B. Walker, of Philadelphia; and "Clinical Notes on the Use of *Convallaria Maialis*," by Dr. Edward T. Bruen, of Philadelphia.

A PROPOSED AMENDMENT TO THE BY-LAWS.—On behalf of the Philadelphia County Medical Society, Dr. HENRY LEFFMAN, of Philadelphia, moved an amendment to the by-laws, the substance of which was that in the future no paper should be read before the society unless it had previously been read before a county society, and by the latter referred to the State society. Under the rules, the amendment was laid over for one year.

CONSULTATIONS WITH HOMŒOPATHISTS.—At the afternoon session a communication from the West Philadelphia County Medical Society was read, embodying a resolution adopted by that society urging that the dignity of the profession should be maintained by refusing to consult with the adherents of an exclusive dogma. The communication was ordered to be entered on the minutes.

Dr. B. LEE, of Philadelphia, presented a report from the Committee on the Codification of the Lunacy Laws. The following voluntary papers were read: "The Hair, its Use and its Care," by Dr. John V. Shoemaker, of Philadelphia [for an abstract of which, see p. 537]; "The Possibility of Abnormal Ocular Conditions impairing the Functions of the Uterus through the Sympathetic System," by Dr. W. S. Little, of Philadelphia; and "The Hygienic Management of Consumption," by Dr. J. M. Anders, of Philadelphia.

THE ADDRESSES FOR 1884.—The president announced the following appointments: Address in medicine, Dr. W. H. Daly, of Pittsburg; address in surgery, Dr. John B. Roberts, of Philadelphia; address in obstetrics, Dr. Jacob Price, of West Chester; address in hygiene and State medicine, Dr. John G. Lee, of Philadelphia; address in psychological medicine, Dr. Alice Bennett, of the Norristown Asylum.

DELEGATES TO OTHER SOCIETIES.—The appointment of the following delegates was announced: To the *American Medical Association*—S. R. Rutledge, of Blairsville; J. L. Stewart, of Erie; R. A. Campbell, of Lewistown; George F. Horton, of Terrytown; W. S. Roland, of York; J. W. C. O'Neal, of Gettysburg; R. Rothrock, of Middleburg; R. L. McCurdy, of Freeport; W. T. Bishop, of Harrisburg; David Engleman, of Easton; E. A. Wood, T. J. Gallagher, and John Semple, of Pittsburg; J. Willis Houston, of Oxford; Thomas Lyon, of Williamsport; J. F. Shepler, of Dunbar; Oscar H. Allis and H. St. Clair Ash, of Philadelphia; H. W. McReynolds, of Bloomsburg; J. W. Tweedle, of Weatherby; J. C. Sheridan, of Cambria; C. Lenker, of Schuylkill; R. H. Chase, of Norristown; Harvey Kratz, of Hilltown. To the *Delaware State Medical Society*—Henry Price, of Kennett Square; W. G. Porter, J. C. Wilson, L. K. Baldwin, and J. A. McFerran, of Philadelphia. To the *Massachusetts State Medical Society*—E. P. Allen, of Athens; P. B. Breining, of Bethlehem; Alice Bennett, of Norristown; G. K. Halberstat, of Pottsville. To the *Medical and Chirurgical Faculty of Maryland*—Hugh Hamilton, of Harrisburg; C. F. Spanler, of York; Edward Jackson, of West Chester; E. T. Bruen and F. P. Henry, of Philadelphia; and R. S. Seiss, of Littlestown. To the *Ohio State Medical Society*—C. B. Kibler, of Coney; J. G. Cunningham, of Kittanning; Charles T. Hunter, of Philadelphia. To the *New Jersey State Medical Society*—Thomas D. Dunn, of West Chester; H. H. Whitcomb and E. M. Corson, of Norristown; Henry Leffman, J. T. Eskridge, and Joseph Hearn, of Philadelphia; and G. D. Nutt, of Williamsport. To the *West Virginia State Medical Society*—

George Stiles, of Conshohocken; W. J. Asdale, of Pittsburg; Charles S. Turnbull, of Philadelphia, and Frank Ehrenfeld, of Indiana.

The meeting then adjourned. The next annual meeting will be held in Philadelphia.

NEW YORK MEDICAL AND SURGICAL SOCIETY.

A STATED meeting was held November 25, 1882, Dr. T. GAILLARD THOMAS, President, in the chair.

TENDENCY TO THE DEVELOPMENT OF DIFFERENT VARIETIES OF MALIGNANT DISEASE IN THE SAME PATIENT.—The PRESIDENT related the following case: A woman, forty years of age, was sent to the Woman's Hospital by a physician who had diagnosed ovarian tumor. The tumor was very hard, immovable, was estimated to weigh thirty pounds, and was doubtless a sarcoma of the ovary; yet the patient was feeling well, and had the appearance of perfect health. On inquiry, it was found that she had previously been to see a so-called cancer doctor, who applied a caustic to a tumor on the breast which was now in a sloughing condition; the other breast was hard and retracted, the seat of ordinary scirrhus cancer. A vaginal examination was then made, and the entire cervix uteri was found to have been destroyed by carcinoma. The patient had menstruated regularly, and, as said before, had the appearance of perfect health.

LAPARO-ELYTROTOMY.—Dr. G. G. WHEELOCK stated that he had recently performed this operation on the cadaver of a primipara who died undelivered at term. When he saw the patient she was in profound coma, had had many convulsions, and was evidently dying with a pulse of 180 and a temperature of 106°. The friends stated that she was at term; vaginal examination revealed the os entirely undilated, and no labor pains had been observed. All attempts at producing dilatation were unsuccessful beyond a very limited extent, and brought on no pains. The patient died within half an hour, and, as no foetal motions had been made out and the foetal heart could nowhere be heard, there was no indication for the operation of Cæsarean section. On the next day the operation of laparo-elytrotomy was performed. Before making the incision the os was forcibly dilated, but it required about fifteen minutes to accomplish it, and the cervix was somewhat lacerated in the process. An incision four and a half inches in length was made in a line from the right anterior superior spinous process of the ilium toward the symphysis pubis, though not extending to the median line. The superficial epigastric artery was divided. The deep artery was seen, but not divided. After working with the fingers down to the vagina, a sound was passed from without through the vagina and pressed upward close to the cervix, forming a projection on which the incision was made. After the vaginal wound had been considerably enlarged by stretching with the fingers, a blunt hook was passed through it and engaged in the cervix, and traction made so as to tilt the organ laterally while the fundus was pressed over in the opposite direction by an assistant. As the patient was a primipara, and the abdominal walls were very tense, and the cadaver very rigid, being nearly frozen, great difficulty was found in accomplishing this part of the operation. Finally, however, the fingers were introduced and version was performed, and the child extracted. An examination of the parts after the operation showed that the ureter remained uninjured below the incision, and the ovarian and uterine vessels also had escaped injury; the cervix was considerably lacerated. Notwithstanding these difficulties, Dr. Wheelock believed that, had the child been living, its life could have been saved, that the difficulties encountered were greater in the post-mortem condition than would ordinarily exist ante mortem, and that in most cases calling for

the operation no such unyielding condition of the os would ordinarily be met with. The woman had died in uræmic coma, and the child had already been dead some hours before that time.

In reply to a question, the PRESIDENT said he had performed laparo-elytrotomy in two cases, in both cases extracting a living child. In one the woman had been in labor a long time, and was in *articulo mortis* when the operation was performed.

Dr. W. M. POLK thought the extent of the abdominal incision, as usually recommended in these cases, was too limited. There could be no impropriety in carrying it at least an inch above the anterior superior spinous process of the ilium. If the epigastric arteries were divided, no particular harm would be done; circulation would be carried on by anastomosis. Thus, an incision at least five inches in length would be made, through which the child could easily be extracted. He reiterated his belief, as expressed on former occasions, that the operation involved little or no danger to the ureter, to the blood-vessels, nor to the tissues, and that in many cases it was certainly destined to supersede the Cæsarean section.

OBSTETRICAL SOCIETY OF PHILADELPHIA.

A STATED meeting was held Thursday, January 1, 1883, Dr. T. M. DRYSDALE, 1st Vice-President, in the chair.

DEATH FROM EMBOLISM.—Dr. WILLIAM GOODELL reported the death of the patient from whom he had removed a uterine myofibroma (case reported by Dr. Baer, in the discussion on Dr. Drysdale's paper, at the meeting of December 7, 1882). The patient had progressed favorably, but some weeks after the operation, while straining at stool, she had evidently loosened a portion of clot on the proximal side of one of the venous ligatures. It passed into the pulmonary circulation and quickly caused death.

WHAT IS THE PROPER MANAGEMENT OF THE BOWELS AFTER PERINEORRHAPHY?—Dr. GOODELL had recently operated, for the relief of lacerated perinæum, upon an insane woman who had been sent to him for that purpose from an asylum. Her insanity commenced after labor, and was probably due to a complete laceration of the perinæum extending two inches up the rectum. It had always been his habit to prevent any action of the bowels during the first week after the operation. This patient, soon after coming out from the influence of the anæsthetic, tore off the bandage from her knees, removed the catheter, and, by severe straining efforts, secured a movement from the bowels. As she could not be controlled, laxatives were given to secure liquid stools and avoid straining. The patient walked freely about the ward from the day of operation. The doctor expected the operation to be a failure under such circumstances; but to his surprise, on removing the sutures, he found that in the rectal portion and the important part of the perinæum union had taken place.

His attention had been called by this case to the question of the advisability of keeping the bowels constipated after this operation. He intended to try the effect of laxatives in future cases.

Dr. R. P. HARRIS reported the case of a woman who, after the operation of perineorrhaphy, would strain, and her efforts at defecation opened the wound to nearly its original extent. In a second operation on the same patient the bowels were kept free and union was perfect.

Dr. E. E. MONTGOMERY, after operating for lacerated perinæum, did not use a catheter, but allowed the patient to pass her water, as he did not consider healthy urine disadvantageous for a wound. He had been in the habit of using compound licorice-powder to keep the stools liquid. He had had good success

in both primary and secondary operations upon the perinæum where the rectum was involved.

The following members were then elected officers for 1883: President, Dr. Richard A. Cleemann; Vice-Presidents, Drs. B. F. Baer and W. T. Taylor; Secretary, Dr. W. H. H. Githens; Treasurer, Dr. Alfred Whelen; Librarian and Curator, Dr. E. E. Montgomery; Publication Committee, Drs. John H. Packard, Elliott Richardson, James V. Ingham, B. F. Baer; Councillors, Drs. R. P. Harris, L. D. Harlow, Wm. Goodell, T. M. Drysdale; Library Committee, Drs. Horace Williams, D. M. Cheston; Committee on Proceedings, Drs. A. H. Smith, E. E. Montgomery.

W. H. H. GITHENS, M. D., *Secretary*.

Reports on the Progress of Medicine.

QUARTERLY REPORT ON ORTHOPÆDIC SURGERY AND DISEASES OF THE JOINTS.

No. XII.

By CHARLES T. POORE, M. D.,

SURGEON TO ST. MARY'S FREE HOSPITAL FOR CHILDREN.

THREE CASES OF BONE DISEASE IN CHILDHOOD LEADING TO DEFORMITY.—Mr. Barwell exhibited at the London Pathological Society ("Brit. Med. Jour.," Feb. 24, 1883) three patients. The first was a boy eight years of age. One tibia was thickened, was an inch longer than the other, and bent forward; this was due, he thought, to hyperplasia of the bone, and was not rhachitic. The second was a girl, four and a half years of age, who was extremely rickety. Both tibiæ were much bent forward, and were not of equal length; this condition Mr. Barwell also attributed to hyperplasia. Both cases, he contended, showed that the deformity in rickets was not due merely to the weight of the body acting on softened bones, but was produced by a hyperplastic malady which affected by preference certain parts of particular bones. His third patient was a man twenty-two years old. He was born healthy and well formed, but at five years of age he suffered from a fever, after which his bones became soft and bent. He presented double genu valgum, curving of the tibia, unlike that seen in rickets, and such great curving of the left radius that the distance, in a straight line, from the head of the bone to the styloid process, was only three fourths of the length of the bone. This case, he thought, was not a case of rickets, but an instance of a disease, inflammatory in its nature, for which there was as yet no name.

CURVATURE OF THE FEMUR.—Mr. Bowlby ("Brit. Med. Jour.," Feb. 24, 1883) exhibited two femora. One was bowed forward, the result of inflammation following on long-continued suppuration produced by an injury; the deformity had appeared early in life. The bone was uniformly curved, and its surface roughened by irregular subperiosteal deposit; the compact tissue of the shaft was thin, and immediately above the condyles was a quantity of soft, mortar-like material; the whole medullary cavity was also occupied by a similar substance. In the second case the curvature of the femur had been gradually produced during the last ten years of the patient's life, and had rendered the affected limb two and a half inches shorter than the other. The patient was a cabman, aged sixty-four. The bone was bent outward and forward in one uniform curve; the shaft was six and a quarter inches in circumference (two and a half inches greater than normal), and rough on the surface. Some parts of the neck and head of the bone presented changes like those seen in rheumatoid arthritis.

DEFORMITY OF THE THIGH GRADUALLY DEVELOPED AFTER AN

INJURY.—Mr. Thomas Smith ("Brit. Med. Jour.," Feb. 24, 1883) gives the history of a girl, seventeen years of age, who, eighteen months earlier, had a fall which seemed to have caused some considerable injury, since, though she was told that her thigh was not broken, she had been kept in bed for two months. Since that time the shape and position of the femur had gradually altered, resulting, finally, in extreme deformity, the bone being bent outward at about the junction of the upper and middle thirds. Mr. Smith thought there might be a little motion at the seat of deformity, but was doubtful. He advocated an attempt at osteoclasia, and, if that failed, osteotomy.

CARIES OF THE SPINE IN TAILORESSES.—CASE I.—Mr. John Hopkins reports ("Lancet," March 31, 1883) three cases of disease of the vertebrae occurring in tailoresses. The first patient was sixty-nine years of age; she suddenly lost the use of both lower limbs; previously she had complained only of a feeling of dejection and indisposition to work. There were increased reflex movements. The seventh dorsal vertebra was slightly prominent, pains occasionally shot down the front of the thighs, the bladder was distended, and the bowels were confined. The prominence of the vertebra became more marked. The patient died five weeks after the onset of the paralysis. On post-mortem examination, the bodies of the seventh and eighth dorsal vertebrae were found carious. The spinal cord was compressed by abscesses pressing backward.

CASE II.—A tailoress, forty-four years of age, who, when a child, was delicate, came under observation with a large abscess over the left thoracic parietes. For the past five years she had been feeling ill, but had no pain. Four months ago a swelling appeared on the left side; this was opened, and a piece of dead bone came away. One month later the patient began to experience pain in the right shoulder; later, pain and stiffness of the neck; then retention of urine and paralysis of the lower extremities; and finally she died from dyspnoea. On post-mortem examination, the outer half of the right transverse process of the first dorsal vertebra was found broken off and reunited by firm fibrous bands, both to the part from which it had been broken and to the posterior transverse process of the dislocated seventh cervical. Caries had destroyed nearly the whole of the body of the first dorsal and the under-surface of the seventh cervical vertebra. An abscess had passed between the bodies and the posterior common ligament, thus compressing the cord.

CASE III.—A tailoress, aged thirty-four, who when a child had had an abscess and necrosis. When she came under observation, she had lost power over the lower limbs, and gave a history of caries of the vertebra, seventh, eighth, and ninth dorsal. She died from exhaustion. No post-mortem was held.

NECROSIS OF THE PATELLA LEADING TO DISEASE OF THE KNEE JOINT.—In the "Lancet," April 7, 1883, Mr. G. A. Wright reports two cases of this quite rare disease. The first was in a boy, eight years of age, who, six months before coming under observation, fell and injured his knee; one month later the joint became swollen, red, and tender. Under treatment he almost recovered, when the knee was again injured. The inflammation was lighted up, and an abscess appeared and discharged. The right knee was considerably swollen, but the swelling was almost entirely limited to the tissues around the joint, there being but little effusion apparent within it. There were three sinuses on the front and side of the knee freely communicating. These were freely laid open. After the joint became more swollen and tender, free incisions were made into it. The synovial membrane was swollen, but the cartilage seemed healthy, except one circular spot, about half an inch in diameter, in the center of the patella; here a perforation existed which ran completely through the bone and communicated freely with the openings on the front of the knee. The wounds were treated antisepti-

cally; some burrowing of pus took place, and, after some months, he was discharged with an immovable apparatus and was lost sight of.

The second case was in a boy, seven years of age, who, ten weeks before being seen, received a blow upon the left knee, and the joint became painful and weak; there does not appear to have been any acute inflammation, and it did not discharge until five days before he came to the hospital. The left knee was found to be swollen and fluctuating, the swelling mapping out the synovial sac. The skin was somewhat red and the veins turgid, but there was little tenderness. A sinus was seen over the front of the ligamentum patellæ. On exploring the sinus, it was found to lead to the upper surface of the patella. On laying the track open, a sequestrum of the size of a damson-stone was found loose in the center of the bone, and, on removing it, a perforation into the joint was seen.

NON-UNION OF THE TIBIA AFTER OSTEOCLASIS.—In the "Medical News," April 14, 1883, Dr. Fildes reports a case of non-union after osteoclasia. It occurred in a girl, five years of age, who was admitted into the Children's Hospital, Boston, with bowing of the arms and legs. On August 30, 1880, the left tibia, and in October the right leg and arm, were fractured with the osteoclast. The limbs were put up in a stiff bandage, and united in a good position in a few weeks, except the left leg, which did not unite firmly. There was here considerable projection forward of the tibia at the seat of fracture. On March 24, 1881, it was again fractured, but it failed to unite. In June, 1882, there was considerable bowing forward at the seat of the former operation, and considerable mobility. What union there was was broken down, and the limb again placed in a plaster bandage. On October 20, 1882, the limb was in the same condition; a cuneiform osteotomy was performed, and the ends of the bone wired together, after which firm union took place. The bone at the seat of operation was found chronic, inflamed, thickened [sclerosed?].

TRANSPATELLAR EXCISION OF THE KNEE.—At a meeting of the London Clinical Society ("Lancet," June 20, 1883), Mr. Golding-Bird read a paper on the above subject. The operation was performed on a boy thirteen years of age. There was a year's history of articular osteitis of the right knee, with pulpy disease. In excising, a transverse incision was made across the middle of the patella, which was then sawn in two. The two fragments, with the soft parts, being turned up and down, the excision was completed in the usual way. Some pulpy thickening was removed from the lower side of the patella, and, when the limb was straightened, two carbolized-silk sutures were passed through its substance, and its two fragments thus united. Primary union was obtained. For four months the patient walked about with a stiff bandage at the knee, and with crutches. He had now a movable patella, and half an inch shortening.

The advantages claimed were that the surgeon could manipulate the joint better than when, with the idea of retaining the patella, the lateral incisions were employed; that, by keeping the normal attachments of the patella, the quadriceps opposed the ham-strings, so that the necessity was obviated of employing a stiff bandage for a year, to prevent posterior displacement of the leg; the rectus femoris had its full play upon the trunk in preserving equilibrium.

[Lack of space compels us to omit the publication of the bibliographical list appended to Dr. Poore's Report.]

THE TRANSACTIONS OF THE NEW YORK ACADEMY OF MEDICINE.—We are asked to state that volume iii. of the new series is now ready, and that Fellows may obtain it at cost price on application to the assistant librarian, Mr. John S. Browne, at the Academy, No. 12 West Thirty-first Street.

Miscellany.

THE NEW CODE IN HORNELLSVILLE.—Under date of May 9th, Dr. C. G. Hubbard, Secretary of the Hornellsville Academy of Medicine, writes as follows: "At the regular monthly meeting of the Hornellsville Academy of Medicine, held on Monday evening, May 7th, its constitution was amended by a unanimous vote in favor of the new code. Notice of the intended change was given at the previous meeting, and of the forty members no one was present to oppose the new code. The sentiment of the fraternity in this region is all one way."

THE AMERICAN LARYNGOLOGICAL ASSOCIATION.—At the fifth annual meeting, which, as we have before announced, will be held at the Academy of Medicine on the 21st, 22d, and 23d inst., the following papers are expected to be read: *Monday Morning.*—"New Facts in Laryngology," by George M. Lefferts, M. D., New York; "A Common Form of Vocal Disability resulting from Pathological Processes: the Phenomena used to demonstrate the Falsity of One System of Voice Training," by S. W. Langmaid, M. D., Boston. *Monday Afternoon.*—"The Destruction of Nasal Polypi by Chromic Acid," by Frank Donaldson, M. D., Baltimore; "Chorea Laryngis," by Frederick I. Knight, M. D., Boston; "The Treatment of Laryngeal Phtisis," by W. C. Jarvis, M. D., New York; "Paresis of the Constrictor Muscles of the Pharynx, simulating Spasmodic Stricture of the Oesophagus, with Report of Cases," by Frank H. Bosworth, M. D., New York. *Tuesday Morning.*—"On Photographing the Larynx," by Thomas R. French, M. D., Brooklyn; "Congenital Tumors of the Larynx, with a Report of Cases," by H. A. Johnson, M. D., Chicago; "Laryngeal Paralysis from Aneurysm," by William Porter, M. D., St. Louis. *Tuesday Afternoon.*—"Reflex Phenomena due to Nasal Disease," by Louis Elsberg, M. D., New York; "Smell, Hygienically and Medico-Legally considered," by Clinton Wagner, M. D., New York; "Asymmetry of the Nasal Chambers," by Harrison Allen, M. D., Philadelphia; "On the Results of the Treatment of Naso-Pharyngeal Polypi, with Demonstration of Successful Cases," by Rufus P. Lincoln, M. D., New York. *Wednesday Morning.*—"A case of Thyrotomy for Morbid Growth; with Subsequent Development of Epithelioma in the Cutaneous Cicatrix, but without Involvement of the Interior of the Larynx," by J. Solis Cohen, M. D., Philadelphia; "Experimental Researches on the Tension of the Vocal Bands," by F. H. Hooper, M. D., Boston; "Aural Complications of Inflammatory Conditions of the Nose and Throat," by Beverley Robinson, M. D., New York; "The Lacunæ Tonsillares," by D. Bryson Delavan, M. D., New York. *Wednesday Afternoon.*—"The Value of Post-Laryngeal Papillomata as a Means of Diagnosis in Tubercular Disease," by George W. Major, M. D., Montreal, Canada; "A Case of Enormous Tumor removed from the Glosso-Epiglottic Sinus, with Remarks," by E. C. Morgan, M. D., Washington; "A Case of Sudden Death occurring after Tracheotomy, with Remarks," by Morris J. Asch, M. D., New York; "On Adhesion of the Velum to the Walls of the Pharynx," by Andrew H. Smith, M. D., New York.

The annual dinner will take place at Delmonico's Monday evening at 7 o'clock. On Tuesday evening the president, Dr. Lefferts, gives a theatre party, to be followed by a supper at Delmonico's.

OHIO STATE MEDICAL SOCIETY.—The first session of the thirty-eighth annual meeting of the society will be held at half-past nine o'clock A. M. on Tuesday, June 5th, at the "Tabernacle" on Ontario street, Cleveland. The Committee of Arrangements of the American Medical Association having formally extended to the society, through its Committee of Arrangements, an invitation to arrange for a single session of the State society, at which only necessary business shall be transacted, and then to adjourn and to have the members become members by invitation of the American Medical Association, the Committee of Arrangements of the State society will, in their report, recommend an acceptance of the invitation.

THE PLAGUE IN PERSIA.—The International Sanitary Committee at Constantinople, says the "Lancet," upon hearing that the plague had again broken out in Persia, close to the Turkish frontier, dispatched a

physician to the district, and they received from him last week a telegram to the effect that "the epidemic which prevails in the Persian villages of Zeilan and Bekir Bey, in the district of Djuvanro, is the bubonic plague. All the persons who have been attacked have had bubos, and there have been one hundred and seventy deaths up to this date." The district of Djuvanro is situated to the southeast of the Turkish province of Suleimaneh, to the south of Selma, near the route to Tauris. The villages in which the plague has declared itself are about equidistant from Suleimaneh and Khanguine, through which latter place pass the caravans conveying the dead bodies of the Persians for burial in the holy places of Bagdad and Irak Arabi. The district thus afflicted is more than ninety miles south of Lake Ourmiah, where the plague made its appearance last year, and this is the first time that the dread malady has been known to break out so far south. The conclusion to be drawn from this is that the plague in Persia has a marked tendency to spread toward South Kurdistan, and unless this tendency is checked it will eventually find its way into the Irak, through the Turkish districts, or through Kirmanchah. It is said, however, that the Kurds are taking energetic measures to prevent the epidemic from reaching them, and that a strict quarantine has been established upon the Turkish frontier.

FIBROMA OF THE ROUND LIGAMENT.—Professor Ludwig Kleinwächter describes, in a recent number of the "Zeitschrift für Geburtshilfe und Gynäkologie," a case of fibroma of the round ligament, which is interesting on account of the extreme rarity of that condition. The only case which Professor Kleinwächter has been able to find is described by Winckel, and in it neither of the tumors, of which there was one on each round ligament, exceeded a bean in size. Dr. Kleinwächter's case was that of a multipara aged forty-four. The tumor reached to two fingers' breadths above the umbilicus, it caused slight pain, and was said to increase in size before and during each menstruation. The tumor was situated more to the right than to the left of the middle line, and when it was pushed upward pain was complained of in the region of the right Poupert's ligament. The uterus was pushed to the right of and behind the tumor, which filled the pelvic brim. The tumor was removed, the operation being long and difficult, owing to the number of adhesions present. The clamp was applied to the pedicle, and two drainage tubes inserted. The patient died from peritonitis on the third day. On autopsy, both ovaries and tubes were found healthy, and the pedicle of the tumor was situated on the left round ligament, about an inch from its origin. The uterus was enlarged, but the nature of the enlargement is not stated. The tumor was solid, fibrous in structure, and weighed about three pounds and a half. Looking at the rarity of this disease of the round ligament, the numerous adhesions present, and the uterine enlargement, it might be suggested, and it is to be regretted that Professor Kleinwächter does not discuss the point, that the tumor was originally a uterine fibroid which had become united by adhesions to the round ligament, and subsequently severed from its old attachment.—*Med. Times and Gazette.*

THE CHARITY ORGANIZATION SOCIETY.—At the recent monthly meeting Dr. S. O. Van der Poel was elected president.

THE ASTLEY COOPER PRIZE.—The next triennial prize of three hundred pounds, under the will of the late Sir Astley P. Cooper, Bart., will be awarded to the author of the best essay or treatise on "Diseases and injuries of the nerves and their surgical treatment, together with the operations performed upon nerve trunks in the treatment of various diseases, and descriptions of the changes which ensue in other structures as well as in the nerves themselves from these operations."

The condition annexed by the testator is, "That the essays or treatises to be written for such prize shall contain original experiments and observations, which shall not have been previously published; and that each essay or treatise shall (as far as the subject shall admit of) be illustrated by preparations and by drawings, which preparations and drawings shall be added to the Museum of Guy's Hospital, and shall, together with the work itself and the sole and exclusive interest therein and the copyright thereof, become henceforth the property of that institution, and shall be relinquished and transferred as such by the successful candidate." It is expressly declared in the will "that no physician or surgeon, or other officer for the time being, of Guy's Hos-

pital or of St. Thomas's Hospital, in the borough of Southwark, nor any person related by blood or affinity to any such physician or surgeon, for the time being, or to any other officer for the time being in either of the said hospitals, shall at any time receive or be entitled to claim the prize." With the exception here referred to, this prize is open for competition to the whole world, but it can not be awarded to any essay that is the joint production of two or more authors.

Essays, either written in the English language, or if in a foreign language, accompanied by an English translation, must be sent to Guy's Hospital on or before January 1, 1886, addressed to the Physicians and Surgeons of Guy's Hospital. Each essay or treatise must be distinguished by a motto, and be accompanied by a sealed envelope containing the name and address of the writer. None of the envelopes will be opened except that which accompanies the successful treatise. The unsuccessful essays or treatises, with the illustrative preparations or drawings, will remain at the Museum of Guy's Hospital until claimed by the respective writers or their agents.

DAMAGE TO THE HARVARD MEDICAL SCHOOL'S NEW BUILDING.—The new building for the Harvard Medical School, a description of which appeared in the "Journal" of April 14th, was damaged by fire last Friday evening, May 11th. On account of the fire-proof walls and ceilings, the fire was confined entirely to the large amphitheatre, which occupies part of two stories, and to one of the hallways. The damage amounts to about \$2,000, and will fall upon the contractors, the building not having yet been accepted by the university authorities. Undoubtedly a searching investigation will be made as to the cause of the fire, but the general belief is that it originated either from spontaneous combustion in some oiled rags used by the finishers, or from a live coal from a plumber's furnace. The building was soon to have been dedicated and opened for inspection to those who had subscribed the funds for its erection. The invitations were all printed, and were in the hands of a committee for distribution. The building, it is hoped, will be opened to the profession in June at the time of the annual meeting of the Massachusetts Medical Society.

AN ORIENTAL FEMALE MEDICAL STUDENT.—A Brahmin lady of high caste is reported to have started for this country, with the purpose of studying medicine at the Woman's Medical College, in Philadelphia.

THE SWIFT MEMORIAL FUND.—The President of the Alumni Association of the College of Physicians and Surgeons, Dr. W. H. Draper, announced at the recent annual meeting of the association that Mr. James T. Swift had given the sum of \$10,000, as a memorial of his brother, the late Dr. Foster Swift, the income to be devoted to the purchase of physiological apparatus for the college.

THE COMMENCEMENT OF THE COLLEGE OF PHYSICIANS AND SURGEONS.—The seventy-sixth annual commencement was held on Tuesday, the 15th inst., at Steinway Hall. The degree of doctor in medicine was conferred by the President, Dr. Alonzo Clark, on one hundred and twenty-five gentlemen. The Cartwright biennial prize of \$500, open to general competition, was awarded to Dr. Walter Mendelson, an alumnus of the college, for an essay on "The Renal Circulation during Fever." The Harsen prizes, for the best reports of the clinical instruction given at the New York Hospital for a term of four months, were awarded as follows: First prize, \$150, to C. H. May, of New York city; second prize, \$75, to Abram Brothers; third prize, \$25, to P. D. St. John, of Iowa. Each of the Harsen prizes is accompanied by a bronze medal and a diploma. The three Faculty prizes, open only to the ten honor men, for the best practical knowledge of medicine and surgery, as determined at the bedside and in work on the cadaver, were awarded as follows: First prize, \$500, to C. H. May, of New York city; second prize, \$300, to J. H. Frankenberg, of New York city; third prize, \$200, to A. F. Brugman, of New York city.

The college confers an appointment on the house staff of Bellevue Hospital on each of the four honor men who pass the best competitive examinations. This year C. H. May ranked first, but, as he had already accepted another hospital appointment, the four in question were given to J. H. Frankenberg, of New York city; A. F. Brugman, of New York city; C. F. Roberts, of New Hampshire; and A. W. Hurd, of Illinois. The names of the ten honor men, in alphabetical order, are:

A. F. Brugman, of New York city; H. P. Cooper, of Georgia; J. H. Frankenberg, of New York city; A. W. Hurd, of Illinois; Richmond Lennox, of New York State; C. H. May, of New York city; J. E. Newcomb, of Connecticut; H. S. Quin, of New York State; C. F. Roberts, of New Hampshire; and F. L. Sevenoak, of New York State.

A RECEPTION AT THE PHILADELPHIA POLYCLINIC.—On the evening of the 11th inst. a number of gentlemen who found themselves in Philadelphia, on their return from the meeting of the State Medical Society, were tendered an informal reception by the faculty of the Philadelphia Polyclinic and College for Graduates in Medicine.

THE PHILADELPHIA HOSPITAL FOR SKIN DISEASES.—On Friday evening of last week Dr. John V. Shoemaker and his assistants at the hospital received a visit from a number of physicians on their way home from the meeting at Norristown. The resources of the establishment, and especially the new bathing facilities, are said to have been very much admired.

THE PHILADELPHIA WATER SUPPLY.—Steps have recently been taken to diminish the proportion of sewage in the water of the Schuylkill River by building an intercepting sewer from Fairmount Dam to Manayunk, provision having been made for a loan of \$500,000 for that purpose.

SIR SPENCER WELLS.—Mr. T. Spencer Wells, of London, whose name is so closely connected with the establishment of ovariectomy as an accepted operation, has been made a baronet.

DEATH OF SURGEON-GENERAL HOLLOWAY, OF ENGLAND.—Surgeon-General James Lewis Holloway, C. B., Army Medical Department, died at Netley, April 19th, at the age of fifty-seven. At the time of his death Dr. Holloway was the chief medical officer of the Royal Victoria Hospital at Netley, where he was esteemed one of the most capable of administrative officers. His death was the result of a short but exceedingly painful illness.

ARMY INTELLIGENCE.—*Official List of Changes of Stations and Duties of Officers of the Medical Department, United States Army, from May 5, 1883, to May 12, 1883.*—**BARTHOLOMEW, JOHN H.**, Captain and Assistant Surgeon. The extension of leave of absence granted April 3, 1883, further extended four months. **PAR. 8, S. O. 105, A. G. O., May 7, 1883.**—**BILLINGS, JOHN S.**, Major and Surgeon. By direction of the Secretary of War, to represent the Medical Department of the army at the annual meeting of the American Medical Association to be held at Cleveland, Ohio, June 5, 1883. **PAR. 10, S. O. 105, A. G. O., May 7, 1883.**—**FORWOOD, WILLIAM H.**, Major and Surgeon. By direction of the Secretary of War, to represent the Medical Department of the army at the annual meeting of the American Medical Association to be held at Cleveland, Ohio, June 5, 1883. **PAR. 10, S. O. 105, A. G. O., May 7, 1883.**—**SMITH, JOSEPH R.**, Major and Surgeon. By direction of the Secretary of War, to represent the Medical Department of the army at the annual meeting of the American Medical Association to be held at Cleveland, Ohio, June 5, 1883. **PAR. 10, S. O. 105, A. G. O., May 7, 1883.**

NAVAL INTELLIGENCE.—*List of Changes in the Medical Corps of the Navy during the week ending May 12, 1883.*—Surgeon F. M. Dearborne, granted six months sick leave. — Passed Assistant Surgeon S. A. Brown, leave extended six months.

SOCIETY MEETINGS FOR THE COMING WEEK.—*Monday, May 21st:* American Laryngological Association (New York); Medico-Chirurgical Society of German Physicians. *Tuesday, May 22d:* American Laryngological Association (second day); Jersey City Pathological Society; New York Academy of Medicine (Council); New York Dermatological Society (private); New York Surgical Society. *Wednesday, May 23d:* American Laryngological Association (third day); Medical Society of the County of New York (Comitia Minora); New York Pathological Society. *Thursday, May 24th:* New York Academy of Medicine (Section in Obstetrics). *Friday, May 25th:* New York Society of German Physicians (private); New York Clinical Society (private); Yorkville Medical Association (private); *Saturday, May 26th:* New York Medical and Surgical Society (private).

Lectures and Addresses.

A LECTURE ON THE
TREATMENT OF ANGINA PECTORIS.*

By PROFESSOR GERMAIN SÉE,

PHYSICIAN TO THE HÔTEL DIEU; MEMBER OF THE FACULTY OF MEDICINE; MEMBER
OF THE ACADEMY OF MEDICINE, PARIS.

GENTLEMEN: Before instituting the treatment of anginal pectoris, it is necessary to bear in mind that it may be only a transitory phase of heart disease, destined ere long to give place to the habitual symptoms of a regular cardiac affection. Angina pectoris is not, then, *per se*, always a cause of alarm, even when the attacks seem to be of a typical character. As it is impossible to predict a temporary duration of the malady, it is the duty of the physician, both during the paroxysm and in the interval, to act as though the return of the paroxysms and their attendant danger were inevitable. Above all, the cause should be sought for.

TREATMENT BASED ON ÆTIOLOGICAL CONSIDERATIONS.—If angina pectoris be due to a poison, it would seem to be a simple matter to prevent the attacks by suppressing the cause.

As for those anginas which have their origin in the abuse of tobacco, the remedy is obvious enough. It must, however, be borne in mind that angina pectoris from tobacco is a rare thing. Tobacco determines intermittences, arrhythmia, etc., much oftener than the painful affection under consideration, which, when the result of smoking, is due to the slow action of the nicotine poison on the coronary arteries.

Angina of alcoholic origin does not yield to suppression of the cause. It is a sure sign, when spirit-drinkers have attacks of angina pectoris, that arterial lesions already exist—that is to say, endarteritis of the coronary vessels, as well as degenerations or scleroses of the myocardium. It is vain to suppress alcohol in these cases; the evil is done, and is almost always irremediable. Gouty angina, which the Germans regard as the typical form, even identifying angina pectoris with gout, is in reality a cardio-vascular lesion, and resists treatment of the diathesis, just as alcoholic angina persists in spite of the suppression of the cause. Even granting that there is a definite medication for the gouty diathesis, as there is for the arthritic manifestations, it is doubtful if one could succeed by such specific treatment in preventing gout from affecting the vascular system, or endarteritis from appearing; in fact, the so much vaunted alkalies can do little for the joint affections, and still less for gout of the heart, or the constitutional condition.

ANGINA PECTORIS OF ORGANIC ORIGIN.—Thus far the causal treatment has been practically nil, with the single exception of angina from tobacco. The anginas of organic origin are not any more amenable to treatment directed at the cause. What can we do to remedy alterations of the coronary arteries, degenerations of the cardiac muscle, dila-

tation of the cavities, and lesions of the aorta, which in reality oftener cause attacks of angina pectoris than mitral lesions? There is no cure for the thoracic angor that results from these grave lesions.

ÆTIOLOGICAL TREATMENT OF ANGINA PECTORIS OF HYSTERICAL ORIGIN.—It would seem that such cases might be easily remedied, that—bearing in mind the hysterical nature of the affection—a preventive treatment might easily be instituted. Practically, however, hysterical angina is very rare, and the cases which have been reported as such have generally been found to be simulated attacks, or real convulsive attacks, of common hysteria with painful irradiations; the diagnosis was at fault. These pseudo-anginas might almost certainly be benefited by hydrotherapy. Were I certain that I had to do with a genuine case of angina pectoris from hysteria, I would preserve the patient from cold douches, which might have a fatal result. These neurotic anginas, almost, if not quite as dangerous as those of organic origin, can be little benefited by the antispasmodics—asafœtida, valerian, musk, castor, etc.

RÉSUMÉ.—The ætiological treatment of angina pectoris is unsatisfactory and generally unsuccessful; the best that we can do, then, is to treat the paroxysms, and endeavor to prevent their return.

METHODS OF TREATMENT OF THE PAROXYSMS.—In the presence of a patient who is suffering from an attack of angina pectoris, you are to search promptly for something to calm the pain, relieve the breathing, and regulate the circulation. The principal means are, first:

Hypodermic Injections of Morphine.—Hypodermic morphine claims a foremost place by reason of the rapidity of absorption and of physiological action. A centigramme of hydrochlorate of morphine (about one sixth of a grain) ordinarily suffices to alleviate the pain, which is the principal factor in the paroxysm. I am not afraid to repeat the injection to prevent a return of the angor. I have seen, with one of my hospital colleagues, an old man who was cured of his præcordial distress—the result of excitation of the cardiac nerves by organic disease—by the daily use, for several months, of morphine subcutaneously. With the same physician I treated still more recently an eminent political personage who finally succumbed to an attack contracted, in the chilly weather of March, by riding in an open carriage at nine o'clock in the evening in the Bois de Boulogne. As he died in spite of morphine, it was reported that he died from morphine. Latterly, and since the experiments of Fillehne, fear has been expressed that these subcutaneous injections might occasion dyspnœa, and even that dangerous form known as Cheyne-Stokes respiration. This fear can hardly contraindicate the use of the opiate for pain where the element of dyspnœa is absent; if there be any embarrassment of respiration, it is owing to the pain, and nothing else.

Nitrite of Amyl.—Recommended as far back as 1857 by Guthrie, then by Gangee, Brunton, Wood, more recently by Pick, Guttman, Schram, Otto, of Germany, thoroughly studied in France in 1873, by Amez-Droz, then by Bourneville, and Dujardin-Beaumetz, nitrite of amyl constitutes

* Translated, with Professor Sée's permission, by E. P. Hurd, M. D., Newburyport, Mass.

one of the most active and most useful means in the treatment of angina pectoris.

Physiological Effects.—Experimental physiologists—Fيلهne and Mayerin Germany, Duceau and Franck in France—have very recently been occupied in investigating the effects of this singular toxic agent, whose *modus operandi* they have defined. First of all, the effects of nitrite of amyl on healthy animals and healthy human beings are as follows:

Action on the Blood-Vessels.—Reddening of the skin and internal organs. The first effect of nitrite of amyl, inhaled in the dose of from two to four drops, is reddening of the face and neck, with red spots on the chest and mottling of the abdomen, but no red markings of the lower extremities. The same reddening is seen in the internal cephalic organs, among others the pia mater, whose blood-vessels are markedly dilated, at the same time that the retina and the lungs remain in the normal state.

Dilatation of the Vessels.—The most remarkable phenomenon, then, is dilatation of the blood-vessels, and this is attended with diminution of vascular tension, which may fall to 0.050 millimetre.

Causes of the Vascular Dilatation and Depression.—Either this is a result of paralysis of the vaso-constrictors and the blood-vessels which they innervate (the older and, perhaps, more general view), or it is produced by excitation of the vaso-dilators, as Franck supposes.

Is this paralysis of vaso-constrictors or excitation of vaso-dilators—whichever it may be—of peripheral or central origin? That it is of peripheral origin seems borne out by the experiment of dividing the spinal cord, in which event the vessels continue to dilate under the influence of the nitrite. If the vessels of the head dilate more readily than the others, this fact does not favor the hypothesis that the paralysis (or excitation) is of central origin. The blood-vessels of the head are more dilatable, because their middle membrane is more elastic and more muscular. Finally, the proof that it is all peripheral is that you may cut all the cerebro-spinal nerves, and the phenomenon of dilatation by excitation of the vaso-dilator nerves none the less persists.

Action on the Heart.—The heart's action is considerably quickened, and the number of beats rises to double the natural; the nitrite acts on the pneumogastric center, which is finally paralyzed. At the same time, the force of the heart is undiminished, even if the vascular tension is diminished, which proves that the vascular depression is not an effect of primary enfeeblement of the heart.

Action on the Respiration.—In man one of the most remarkable phenomena from the very commencement is the facility of respiration, whose type, moreover, does not undergo modification; the patient feels that he can breathe more freely. In animals there is, first of all, acceleration of the respirations, which become deeper and more prolonged. With larger doses the respiration becomes slower.

To sum up: in the first period of the action of the medicament the vascular tension is lowered, the vessels are dilated, the action of the heart is very much quickened, the respiration rendered more free and easy. At a more ad-

vanced period, the pressure remaining lowered, the heart becomes slowed as well as the respiration.

Practical Applications.—In its application to the treatment of angina pectoris, nitrite of amyl produces effects which are remarkable and immediate. I have verified this in two patients, one of whom was affected with Corrigan's disease, with severe nocturnal attacks of angina pectoris. This patient occupied No. 20, Ward St. Christophe. From the very first exhibition of the nitrite—three or four drops inhaled from the open palm—the paroxysm ceased, instead of lasting fifteen minutes or more, as was the case when the medicine was withheld.

How does this remedy act? It suppresses pain; it facilitates the circulation, by dilating the blood-vessels; it renders the respiration more free. And all this is done in an instant almost. Nitrite of amyl, therefore, constitutes the most efficacious and the most prompt of the modifiers of the heart, and especially of the circulation. The sanguineous irrigation by the coronary arteries is increased, is accelerated, like that of the other vessels; the cardiac ischæmia ceases, the heart resumes its tasks immediately, and the respiration which before was embarrassed becomes again free. But do not forget that, in going beyond the dose indicated, you expose the patient to the risk of cardiac syncope. Remember, moreover, that the patient, in a sufficiently brief space of time, becomes accustomed to the remedy, so that its good effects become less and less manifest.

Nitro-glycerin.—The physiological effects of this medicament are very much like those of nitrite of amyl. Dr. Murrell, an English physician, was one of the first to call the attention of the profession to this remedy. I have tried it in a few cases, giving internally one or two drops of a one-per-cent. solution; it has seemed to me to give relief.*

Chloral.—Chloral acts very promptly in procuring sleep and in facilitating respiration, but its effects on the circulation are almost nil in these cases. It is not to be depended upon, and I have abandoned its use.

Divers Excitants.—Colin recommends the acetate of ammonium, which is also a favorite with Vignier, in the dose of six grammes.

I shall speak of electricity under the means of prevention. It has no curative power during the paroxysm.

RÉSUMÉ.—Morphine subcutaneously, nitrite of amyl in inhalations (three to four drops)—these are the medicinal measures which seem to me likely to be relied on in the future. Both diminish the intravascular pressure, and thus facilitate the circulation. But there is a physiological contrariety between these two medicaments which seems to demand elucidation. Morphine does, in fact, diminish the intravascular pressure by giving more tone to the blood-vessels, which are made to contract under its influence, but in such a way as to help on the circulation, and thus re-enforce the work of the heart, whose tasks are lightened when

* Mr. Field, of Brighton, England, was the first to describe, twenty years ago, the physiological effects of nitro-glycerin. Dr. Murrell afterward repeated the observations of Field, trying it on thirty-five patients. The action of nitro-glycerin is a little slower than that of nitrite of amyl.—TRANSLATOR.

the auxiliary vaso-motor forces are in their highest state of efficiency. Nitrite of amyl lessens the blood pressure by dilating the vessels, and thus removing obstacles to the free circulation, and in this way lightening the heart's labor. The circulation by the coronary arteries is thus favored by either mode of action, but in a more marked manner by nitrite of amyl. Moreover, the two medicaments assuage the pain which embarrasses the heart's action, and facilitate respiration, which is also embarrassed.

TREATMENT OF ANGINA PECTORIS IN THE INTERVAL OF THE ATTACKS.—Besides the ordinary recommendations to persons suffering from heart disease, spirit-drinkers in general, and smokers in particular, to abstain from customary excesses, it remains to do what can be done to prevent the attacks by hygienic and medicinal means. Jurine advises persons who are victims to this painful cardiac affection to live in the country, to keep as free as possible from all care and excitement, to inhabit a ground tenement, to walk and ride a little every day. This advice would be very good if it were practicable.

The medicinal measures which I employ habitually are: 1. Bromide of potassium; 2. Digitalis; 3. Electricity (hardly habitually, but it deserves mention); 4. Arsenic (of which the same may be said); it is sometimes of use as a vaso-motor tonic, but its action is doubtful.

Hydrotherapeutics ought to be absolutely proscribed.

1. Bromide of potassium determines contraction of the blood-vessels, calms the nervous system (particularly the centers of special sense), and induces sleep; it is a regulator of the peripheral movements of the blood. Under its action the patient becomes less impressionable to the physical and psychical influences which might provoke a return of the paroxysm. But this medicine has the grave inconvenience of producing a debility which is more or less permanent, and can not be continued with impunity beyond a certain time.

2. Digitalis, when the thoracic angor results from cardiac atony or degeneration, presents a real advantage over the bromide; it fortifies and sustains the action of the heart, and is in every way the preferable medicament.

3. Electricity has been applied in divers ways, and in accordance with the different theories which have been put forth as to the nature of the malady. If employed from confidence in the pneumogastric-nerve theory of Eulenburg,* and an attempt be made to galvanize this nerve, you run the risk of arrest of the heart's action; the unfortunate case reported by Duchenne is in proof of this.

If you desire to influence the sympathetic alone, in accordance with the theory of Martin and Hachard, there is a practical difficulty in the way, and, moreover, a physiological heresy lurks behind the theory. There is, in fact, no paralysis of the sympathetic to overcome. The disease is in reality attended with excitation of the cardiac sympathetic nerves, and the coronary vessels, the latter being in a state of erethism—there is no paralysis in the case; on the other

hand, there is not even excitation of the sympathetic nerves in general, accompanied by a contraction of the blood-vessels in general. The disease (so far as the nerves implicated are concerned) being partial and limited, how are you going to benefit the pathological condition by electrical currents applied to the sympathetic trunk or plexuses? If it were possible to galvanize the cardiac sympathetic nerves, would you not augment rather than diminish vaso-motor contractility? The subject demands further study.

A CLINICAL LECTURE ON ELEPHANTIASIS ARABUM.

DELIVERED AT THE MEDICO-CHIRURGICAL COLLEGE OF
PHILADELPHIA.

By F. LE SIEURE WEIR, M. D.,

CLINICAL PROFESSOR OF DERMATOLOGY.

GENTLEMEN: Among the patients in the waiting-room to-day is one in particular whom I wish to show you, since the case illustrates most beautifully a disease that I had occasion to describe in a recent didactic lecture. At the time of that lecture no case of the kind was to be had for practical demonstration, and, as the lecture came on in the regular order in which the various skin diseases are taken up in the didactic course, I merely went over the ground, as you will remember, intending to take up the subject more thoroughly at some time in the future, when a well-marked case should present itself. Some weeks have elapsed since then, and to-day is the first opportunity I have had of carrying out my design. Nor is this to be wondered at, for the disease is not so common that cases are found every day in the waiting-room. On the contrary, it is a comparatively rare affection. I desire you to observe closely the history and symptoms of this case, as well as the external appearance; but it is to the pathological anatomy and histology that I wish particularly to call your attention.

My assistant tells me that the patient, who is a female, is very nervous, and is reluctant to exhibit herself before so many gentlemen; so, to humor her and not inflict unnecessary discomfort, we will dispense with her presence until it is required to illustrate the external phenomena of the disease.

Elephantiasis Arabum, in the first place, is a disease which has received quite a variety of names—some descriptive of the appearance of the skin, others of the climate supposed to be peculiarly favorable to its development, while yet others have been adopted owing to its resemblance to allied diseases, and so on, almost indefinitely. It is to be regretted that some definite name or combination of names has not heretofore been settled upon to designate the disease and distinguish it from another, for, as it now stands, it frequently happens that an explanation has to follow the use of some of the terms used. Elephant leg has been largely applied to it, and, I must confess, serves an admirable purpose; but it has the disadvantage of being anything but elegant or scientific. Barbadoes leg is another, and was so given through an erroneous impression that the disease was more prevalent there than elsewhere. I need not

* Eulenburg, "Traité des maladies nerveuses," 1878. He describes two forms of the disease, one of which is due to direct excitation of the vagi nerves, the other to reflex excitation of these nerves. He also describes two other varieties of different nerve origin.

say that this, therefore, is a misnomer, since it may occur in almost any section of the globe or under any climate, though it is, to be sure, more commonly observed in tropical countries. *Bucnemia tropica* is open, in a lesser degree, to the same objection. Spargosis has been suggested by Mason Good, and adopted by the College of Surgeons of England, but I do not know that it is entirely distinctive, or has any especial claim to recognition from American dermatologists. Elephantiasis has, perhaps, been received more favorably than any other appellation, although it has no other earthly claim than that it suggests the rough, uneven hide of the elephant.

There is no objection to this, however, for the skin of a person afflicted with this disease resembles in no small degree that of the animal named, as you will presently see for yourselves. I say that the name is not objectionable: but this statement must be qualified, for, taken alone, the term is decidedly objectionable. It is only when the word *Arabum* is coupled with it that we have a synonym as complete and free from fault as it is possible to get it. There is another disease the name of which is often confounded with that of the malady under consideration. I refer to leprosy—true leprosy—or elephantiasis *Græcorum*. The two diseases were anciently known as Arabian leprosy and Greek leprosy, which, put in the Latin, give us elephantiasis *Arabum* and elephantiasis *Græcorum*. You will thus readily see the confusion to be caused in the nomenclature by simply speaking of either disease as “elephantiasis.” The simple addition of either word, as the case may be, to my mind, obviates any difficulty, and at once renders the meaning clear. It has been in modern times that this confusion has arisen regarding nomenclature, for among the ancients the disease was known for the most part by one name only—elephantiasis *Arabum*, or the “Leprosy of the Arabians.” In my library is an original work on “Diseases of the Skin,” published in London in 1726, in which the author, Daniel Turner, uses no other name in his crude description, and very possibly he knew no other.

So far, therefore, as we are concerned, there will never arise any misunderstanding as to the disease referred to when speaking of elephantiasis, inasmuch as the suffix will invariably be appended. Allow me to repeat what I said a few minutes ago in relation to the climatic home of this affection: that it is not confined to tropical climates, since it is observed in nearly all quarters of the earth; that it is encountered, though, far more frequently in warm climates, and is in reality a native of the latter. It is especially prevalent in India, the West Indies, Barbadoes, Egypt, Japan, and China. Here in America it is observed much more frequently than it would otherwise be were it not for the fact of our population being constantly augmented from all parts of the world. It is, therefore, probable that most of the cases seen in this country have been imported directly from some one of the hotter countries, or the patients have been at some time, not long before the development of the disease in them, residents of such climates. The cases occurring here in native-born subjects, who have never been in any climate conducive to its development, I believe to be very small in number. The seat of the disease is most usu-

ally the feet, legs, and scrotum, occurring most frequently in the order named. Other parts of the body are, however, not exempt from it, inasmuch as the prepuce and pudendum, and even the head, face, and ears, are sometimes the parts involved.

The doctor has now brought the patient (Mrs. McC.) before us, and, as you probably noticed, she walked into the amphitheatre with a heavy, somewhat rolling tread, putting the feet down upon the floor in a cautious, easy manner, and, by the way, very much after the style of the huge mammal from which the disease takes its name. She is aged forty-five years, and is of Irish birth. As you see, she is somewhat inclined to obesity, but it would require an inordinate amount of adipose to produce the appearance presented in the lower limbs of the patient. She has never lived elsewhere than in Ireland and America, and in the latter country she has been resident for thirty years. Up to four years ago she was perfectly healthy, rarely, if ever, requiring the services of a physician, and in all respects being a fine sample of the sturdy healthfulness of her race. At the time mentioned, however, she experienced an attack of erysipelas which affected both lower extremities from the knees downward. I need not enumerate the train of symptoms attendant upon the erysipelatous lesions, since you are probably familiar with them already. Suffice it to say that, after the force of the local fever and inflammation was expended, resolution did not take place, as you know is ordinarily the case. The parts still remained swollen and somewhat reddish in color, but not markedly so. Bear in mind that the fever and pain and all else had vanished, but the symptoms mentioned.

This state of affairs continued for some months, with the exception, however, that the reddish hue gradually faded away. The parts remained thus *in statu quo* for that length of time, when she was suddenly seized, without assignable cause, with chills, quickly succeeded by fever, and accompanied by some cephalalgia, etc., which was immediately followed by a repetition of the symptoms in the legs—namely, the swelling became more marked, the discoloration returned, accompanied by a feeling of tension, together with smarting, burning, and itching. This remained for some time (several days, probably, though the patient's memory fails her on this point), and was succeeded by the phenomena characterizing the primary attack; that is to say, the symptoms all disappeared but the swelling, which was now more evident than before.

This description of the attacks occurring at the commencement of the disease serves for all subsequent ones; they have been nearly all alike, presenting the same symptoms, running the same course, and every attack leaving the parts larger than before. These seizures have occurred at varying intervals from that time up to the present; how many I do not know, nor does the patient herself.

During the interval between the later attacks the redness has not disappeared as it formerly did, but, on the contrary, increased, thus showing the capillary network to be largely hyperæmic. The redness is diffused generally over the surface of the skin, but at different points, for some inexplicable reason, the discoloration is intensified, and proclaims

itself in the form of purplish-red blotches and nodules, the edges of which are not well defined. Exposure to cold weather or wetting the feet results in a fresh onslaught of the inflammation, and always leaves the part more hypertrophied than before. At the time of the seizures the lymphatic vessels become hard and tender, and run as well-defined red cords along the limbs. The lymphatic glands also participate in the general disturbance. There you have the history of the case. By inspection, we see that both legs are enormously enlarged from the knees downward to the ankles, where a roll of hypertrophied tissue hangs over feet so deformed by the disease as to be scarcely recognizable.

The rolls at this point, as well as the rough tubercles (which so strikingly resemble the pachydermatous covering of the elephant or rhinoceros), consist of enormously indurated subcutaneous cellular tissue, the direct result of repeated attacks of inflammation of those parts. The mass has a hard, dense feeling, as though handling a thick piece of rubber. Pinching conveys the same impression, for the parts are too dense to yield readily, and, when released, resume their former shape. There is no tenderness on pressure, and there is every reason to believe that sensibility is not diminished. The patient's general health is good; the appetite is the same; the natural functions of the body are regularly performed; and she is just arriving at the menopause.

She complains of no special pain in the parts, but, instead, a dull, indefinable heavy ache, due, I think, to their weight.

It is, however, to the pathology of this elephantoid malady that I desire to draw your particular attention, for herein shall we find the secret, if it is to be found at all. I need not say to those of you who have given any especial attention to pathological research how much may be learned through this channel, for no man can be employed in this field and not be impressed with the mighty wonders lying hid away, only awaiting the magic stroke of the anatomist's knife and the microscope of the histologist to be laid bare to the intellect. Since pathological histology has come to be recognized as playing so important a part in the science of life, many hitherto ill-understood diseases have yielded up their secrets so long concealed from us beneath a multitude of (in many cases) misleading symptoms. I can not too highly enlogize this peculiar branch of study, realizing as I do how closely it is allied to the successful comprehension of disease in all its fantastic forms, and the consequent successful treatment of the same. My colleague, the head of the department of pathology, doubtless becomes warm upon his subject; but, while I fully share his just enthusiasm, it behooves me to proceed to an explanation of how this science aids us so mightily by applying it to the case under consideration.

The disease is essentially classed nosologically under the head of hypertrophies.

The lymphatic system is the primary seat of the affection, and the first stage is inflammation. It naturally follows that, if we have repeated attacks of inflammation concentrating in a given locality for any length of time, the

intervening time between the attacks being comparatively short, some slight influence will be exerted upon the lymphatic vessels traversing the part; and, if the attacks be continued, these same vessels will consequently become more or less obliterated, and their functions thereby impaired to the extent that the lymph, which it is their office to convey away, is of necessity deposited in the substance of the subjacent tissues.

From this accumulation the tissues become impacted, and hypertrophy is the direct result. When a deposit of lymph had once taken place in this case, the subsequent erysipelatous attacks I believe to have been caused quite as much by the abnormal excitation under which the tissues labored as by the existence in the blood of the specific poison of erysipelas itself; and, further, that this self-same poison, now generally admitted to be peculiar to erysipelas, would not assert itself so frequently and without apparent cause were it not for the constant incentive (in the form of the hypertrophied tissues) to a fresh outbreak.

The hypertrophy becomes more and more intense under the repeated attacks of inflammation, until it is communicated to the layers of the skin adjoining that in which the primary deposit took place, and at last the epidermis, corium, and subcutaneous cellular tissue are all involved, while the blood-vessels are distended and forced to do an amount of work largely in excess of that which they are ordinarily called upon to perform.

The knotty and rugose appearance of the superficial layer of the skin is due to the accumulation of a prodigious number of epithelial cells; and it is this latter feature, together with many of the other conditions mentioned, that has induced some very acute observers to declare elephantiasis Arabum and scleroderma identical, since in the latter affection the same characteristics are noticeable.

I hardly think them identical, notwithstanding the strong argument of the analogy between them pathologically. The two diseases are probably distinct and separate, and they furnish a well-marked example of how nearly allied diseases of the same class may be.

Free nuclei, cells, and fibrous bands, all in process of development, are observable everywhere, while fat cells are numerous, especially about the muscles. The latter are usually atrophied. The nerves—that is, the larger ones—are somewhat flat in shape, and occasionally enlarged. This is not, however, an invariable accompaniment. If an incision be made into an elephantiasis leg, the knife penetrates through integument of leather-like consistence, grating harshly and even requiring an effort, so great is the density of the part, and is frequently followed by an escape of lymphoid fluid, the presence of which is what gives rise to pitting on pressure in the earlier stages of the disease.

I have now given you a few of the leading features of the morbid anatomy of elephantiasis Arabum; and if, aided by your note-books, you will grasp them, as I am sure you can, you will have gained a considerable step in the study of dermatology, difficult though it is thought to be.

As to the ætiology there can be but little said, since but little is known. In the present case erysipelas ushered in the initial attack, and to it, in the absence of any other as-

signable cause, must be attributed the disease. Nor do I see any objection. It is a fact worthy of notice that erysipelas in the majority of cases precedes an attack of elephantiasis Arabum; but that such is the invariable rule is not true. Other causes have been advanced, it is true, but none have so plausible a backing. There has never been any special effort made, to my knowledge, to ascertain the reason why erysipelas is so frequently a prodrome—if the word will apply. The books are altogether misty on the etiology of the malady.

The diagnosis offers no difficulty.

I will venture to say that none of you now present ever saw any other disease that resembled this one before you to-day. The very shape, together with its appearance, is simulated by no other disease, and is then conclusive.

The prognosis is not, as the rule, favorable, for the disease lasts a varying length of time, possibly through life. Our patient has been a sufferer for four years, gradually getting worse, and with every prospect, as the case now stands, of continuing so.

TREATMENT.—The disease is amenable to treatment to the extent of amelioration; and in this mitigated condition—in the cases where mitigation is possible—the affection continues to the end of the chapter. But very little remains to be said concerning the treatment, for it is unsatisfactory. The most encouraging results have been obtained from the use of external applications. Cold lotions, hot fomentations, frictions, rest, pressure, and blistering have each been used extensively, the result being in the main but indifferent, though occasionally a marked diminution has been observed. In connection with external applications, I should think prolonged medicated baths might be serviceable, though, perhaps, not any more radical than the other means just spoken of. I have never tried them.

Internally, the salts of quinine and potassium, and mercury in various forms, have all been tried, and with success in not so large a ratio as with external means. A judicious combination is advisable in most cases as being productive of the best results.

There is, however, one method which I have not yet mentioned—namely, ligation of the main arterial trunk. This measure is extremely heroic, but has yielded better things than any other; it is, moreover, based upon good, sound anatomical and physiological principles. One observer, whose name has escaped my memory, has rightly said that the ligation of the principal vessel supplying a part has different effects upon normal and abnormal structures. Lest you do not comprehend my meaning, I will repeat that tying the main artery in a sound limb has a different effect from what it would have were the limb diseased.

I think I make the quotation very nearly *verbatim* when I say that “the activity of absorption, as a general rule, is in inverse ratio to that of circulation. And when the force of circulation is diminished, absorption is usually more energetic. The process of absorption frequently goes on of its own accord if once started.” In other words, if, in this case, we were to ligate the femoral artery, absorption would go on more rapidly than if the same operation were per-

formed upon a sound limb. Ligation is not always attended with success, nor anything like it; on the contrary, no change whatever has resulted from such an operation in more cases than one.

I should be very chary about resorting to this remedy, notwithstanding that it holds out more hope than any other known means. The dangers are manifold: gangrene is liable to follow, in defiance of collateral circulation (which my learned colleague, Professor Oliver, has doubtless freely demonstrated to you); pyæmia may occur, though this is not to be feared like gangrene, for the occurrence of the latter means amputation; and, lastly, alarming hæmorrhage may occur from what would be in the normal state small branches, but here greatly enlarged. Cutting operations are best avoided, especially if the affected part is the scrotum. Here frightful hæmorrhage has followed an attempt at extirpation by the knife. I recall a somewhat unique and remarkable instance of amputation of the scrotal mass by a clamp-like apparatus, in which one hundred and thirty-six cases were operated upon with most gratifying results.* The clamp was composed of two parallel bars, with a screw at each end, by means of which the upper bar could be screwed down tightly when applied to the neck of the tumor. The upper has a slight depression, or rather excavation, in the center, to accommodate the penis and prevent it from being crushed. The whole apparatus is very simple, and answered an admirable purpose, as evidenced by the fact that of the hundred and thirty-six operations only two resulted fatally. A similar clamp is suggested, I believe, in former editions of Druitt’s “Vade Mecum.” The smallest of the tumors weighed seven pounds, and the largest eighty pounds. There were two which attained the latter weight, one of which measured fifty-four inches in circumference, the other about forty inches.

The account (which I would advise you to read carefully) is not without its moral, since it shows what can be accomplished when we are put to the test. Here was a surgeon who lived in that out-of-the-way corner of the world, the Samoan group of islands, who had never seen an operation of this kind, if, indeed, he ever had seen a case of the disease before, and who, when the necessity arose, was equal to the emergency, and constructed his own appliances, or, at least, caused them to be constructed according to his suggestions, and by their aid boldly attacked the enemy with the brilliant results recorded. The moral is obvious: always be prepared, for you never know at what moment you may be called upon to exhibit your tact and skill; and promptness and ability to cope with danger you will find most invaluable to you in your professional life hereafter, while to fail is not only to the disadvantage and oftentimes peril of your patient, but disastrous to your reputation. Although I should not hesitate to cut down upon a main arterial trunk and tie it, in a case where I thought the constitution equal to the shock and subsequent exhausting drain of any kind upon the system, I am loth to advocate anything of the sort in this case, for the patient’s vital powers are not sufficient to brave the possibilities, not-

* Turner, “New York Medical Abstract” (from Glasgow “Medical Journal”), July, 1882.

withstanding her stout figure—in fact, that is just one potent reason against any such procedure. In the second place, she will not consent to any operation of a “cutting” nature, so that that disposes of the matter very effectually. In a recent communication received from Professor A. C. Post, of New York, he informs me that he has used the actual cautery (*ferrum incandescens*) in dermatocellulitis with most gratifying effect, “the patient being, in every instance, well pleased.” This, so far as I know, has never been applied in elephantiasis Arabum, but, reasoning *a priori*, I think that its use in the latter disease might be productive of much benefit. If it is possible to obtain the patient’s consent, I will apply this remedy in the present case, and in your presence.

For the present, however, I will apply this thin rubber bandage (somewhat on the style of Esmarch’s), which is about three inches wide, and sufficiently long to reach from the distal extremity of the toes to the knee. This I now apply, beginning at the toes and moving upward, drawing the bandage moderately tight as I go, and thus pushing the blood before it. You doubtless wonder why I had the woman placed upon her back before commencing to bandage: it is to get the benefit of gravity; and this desired end is more completely attained by having my assistants to hold the leg in an elevated position.

I am careful, as you see, not to make too much traction lest I deprive the parts of too much blood. Spiral turns are all that are necessary in applying an apparatus of this description, especially where the limb, as in this case, is of about a uniform size from foot to knee. I now tie the two ends of tape, attached to an eyelet in the extremity of the bandage, around the leg, and thus secure it from unwinding. But one leg will be bandaged at a time until we note the effect. Already, she tells us, the leg feels better. By that she means that the immense rolls of indurated skin have now support, and, in consequence, she does feel better.

We will have her here again shortly, at which time, should we be able to gain her consent, the iron will be used.

Original Communications.

THE STATUS OF THE MEDICAL PROFESSION IN THE STATE OF NEW YORK.

By HENRY G. PIFFARD, M. D.

Fourth Article.

At the annual meeting of the Medical Society of the County of New York, held October 25, 1880, its Committee on Ethics made the following report: *

... “Almost without an exception, therefore, the work of the committee has been confined to complaints against members of the society for public advertising, or methods that are regarded as at variance with the spirit, if not the letter, of that

* I omit such portions of the report as have no bearing on the present question.

portion of the American Code of Ethics embraced in Chapter II, paragraphs three and four.

“The committee approached this well-known field of action, where an almost ineffectual skirmish has long been kept up, with feelings of great uncertainty as to what the result of their efforts would be, and with a desire to perform their unpleasant duty without giving unnecessary offense to any. The committee, although to some extent shielded from personal attacks by its official character, has been unable in all instances to perform its duties without censure from individuals with whom it has been in communication; and in other instances, where requirements were made under the committee’s interpretation of the law, it has encountered firm opposition. Previous to this committee’s appointment, efforts had been successful in securing the withdrawal of physicians’ mineral-water testimonials from the public press, but it was well known to the committee that all attempts to suppress those still appearing in the medical journals had been in the main unavailing; indeed, these futile efforts were treated as an encroachment on the rights of those concerned.

“The society, when appealed to on this subject at a meeting held April 22, 1878, adopted a resolution clearly expressing its disapproval of the practice of giving certificates to be used in bringing to notice ‘any drug, nostrum, mineral water, wine, or other proprietary article intended to be used as a medicine or remedy in disease, or to any patented instrument or appliance that is intended for medical or surgical use.’

“This resolution, which, morally at least, had all the force of a by-law of the society, was at the time of its adoption brought to the notice of every member of the society. The effect, however, was not what had been expected, and the commercial pages of the medical press still teemed with advertisements of trade-marked preparations, etc., bearing the sanction of medical men. . . .

“The committee, after mature deliberation, being encouraged by the success others had already attained, and fortified by the resolution of the society above alluded to, thought that it was clearly their duty to make another appeal to those who still considered that they had a right to give their sanction to the articles under consideration in a manner objectionable to the profession in general. The committee, therefore, adopted the following at a meeting held January 7, 1880: ‘*Resolved*, That, in view of the fact that these certificates are offensive to a majority of the profession, and that their continuance is an injury to professional tone, the Committee on Ethics respectfully requests the gentlemen concerned to take measures to have them discontinued.’ This resolution, together with that adopted by the society, was printed in the form of a circular, and copies of it were sent to all whose names had been reported to the committee, with a request that they would signify to the committee what course they intended to pursue in the matter. The total number to whom the circular was sent did not, perhaps, exceed two dozen.

“As a result of this action, a very small number signified their intention to withdraw the objectionable testimonials, and the committee has been informed that they have done so. In a few instances, letters in vindication of certificate writing were received, but it is believed that the position assumed in defense is not tenable, for in the advertisement of lactopeptine, for instance, the virtues of the remedy are extolled in a manner rather to arrest the public eye than instruct the physician; and this of a preparation where the method of manufacture is kept secret, and where the copying of its name by any one would render him liable to prosecution. The indication of the constituents of this preparation does not relieve it from the objection held against trade-marked and proprietary articles.

"The greater number to whom the circular was sent, however, failed to respond to the committee's request, and their certificates continue to appear.

"It will thus be seen that the committee has advanced this work but little, for, so long as any member can permit of the publication of these certificates with impunity, the majesty of the codes of ethics is not maintained. And, now that the society has continued to experience defeat in this matter, it may be well, before entering the contest again, to inspect its position and strength. The committee has, therefore, made a careful examination of that portion of the American Code of Medical Ethics and of the System of Medical Ethics of the Medical Society of the State of New York bearing on this subject, and it seems to it that, although their provisions may have been sufficient for the time when they were adopted, a gradual transformation in the character of the abuses alluded to has taken place, and, instead of secret remedies, there has grown up the proprietary and trade-marked article, which requires the investment of a large amount of capital. Secrecy has ostensibly been removed as to the constituents of these goods, but their manufacture or imitation is successfully prevented by patents and trade-marks. That they owe their chief value to professional testimonials and skillful advertising may well be believed. The committee has failed to find anything in the codes referred to sufficiently explicit to give them plenary power to take further action. If, therefore, the society desires to prevent its members contributing to trade interests in the manner above alluded to, and thus injuring its own, it has ample power under the State statutory laws to make the resolution of April 22, 1878, a by-law of the society. The experience of the committee leads it to believe that no other course will accomplish the end desired. . . .

"In this connection, it may be pardonable for the committee to state that its experience during the past year has, in a forcible manner, demonstrated the inadequacy of the present codes of medical ethics to the existing demands of the profession. The code adopted by the American Medical Association thirty odd years ago has in many respects become obsolete; what were deemed offenses then are no longer regarded in the same light. *Per contra*, the ingenuity of man has developed practices which were unknown when the codes, national and State, were established, and hence were unprovided for. The code of the American Medical Association contains a mass of sentimental advice which, together with its moral platitudes and verbiage, would seem to suggest the necessity for its revision. Our own System of Medical Ethics, which the State society adopted in 1823, and which has since been subjected to but few alterations, is, perhaps, even more obsolete than the code above alluded to. The profession is now in no sense guided by these codes; nor does it seem desirable to hold it together either by the regulations that pertain to trades-unions, or by the moral platitudes of existing codes, but it rather requires for its wholesome government clear and business-like regulations, backed up by our ample statutory laws, leaving the matter of moral maxims and precepts, as well as personal manners, to the social conditions that surround the individual."

This report was signed by Drs. Samuel Sexton (Chairman), James R. Leaming, W. M. Polk, J. D. Bryant, and Clement Cleveland, Secretary.

The foregoing was printed, and distributed to the members of the society.

At the annual meeting of the Medical Society of the State of New York, held February, 1881, the President of the society, in his Inaugural Address, called the attention of

the society to the necessity for a change in the code of ethics, perhaps the need for an entirely new one.

The committee to whom the President's address was referred reported the following resolution:

"*Resolved*, That a special committee of five be appointed by the President, to be designated a 'Committee on the Code of Ethics,' whose duty it shall be to consider the whole question of desirable changes in the code, and who shall present to the society, at the session of 1882, such suggestions on this subject as their observations and investigations may direct." This resolution was adopted by the society, and a committee of five was appointed. Of the *personnel* of this committee the following may be stated: Three of its members were chosen from among the older members of the society and the profession, and two from among those who had been in practice between fifteen and twenty years. Three of the members had been presidents of the society, and the other two had served on important standing committees. Three were from the northern, western, and middle portions of the State, and two from the city. Three were general practitioners, and two were specialists. From this it would seem that the various interests involved had been carefully provided for. The committee gave the subject with which they were charged careful and laborious attention during the year that was allotted to them. The views of the different members were in part elicited and circulated by correspondence, and the views and feelings of many of the more prominent, and also of the more obscure, members of the profession were sought. After a pretty complete knowledge had been obtained of what appeared to be the prevailing sentiment of the profession throughout the State, the committee, setting private business aside, devoted two entire days to the matters under consideration. The first conclusion arrived at was, that, if the profession of the State desired a code, one should be reported that should be clear and distinct in its meaning, and one that could be enforced when necessary. The second conclusion was that the code should contain nothing that was already provided for by the laws of the State, or by such moral laws as all, whether Christian, Jew, or infidel, considered binding. This narrowed the matter to the formulation of such rules as seemed to the committee most likely to be in harmony with the sentiments of the thoughtful members of the profession, and to conduce to the best interests both of it and of the public.

The two most important sections of the code were, first, those relating to the matters which the Committee on Ethics of the New York County Society had brought to the notice of the profession, and, second, those which related to the question of consultations. In dealing with this matter, the committee carefully examined the American code, and found, as had been pointed out by the New York County committee, that it did not fully cover the ground. They, therefore, added several supplementary clauses, which made the completed article read as follows:

"It is derogatory to the dignity and interests of the profession for physicians to resort to public advertisements, private cards, or handbills, inviting the attention of individuals affected with particular diseases, publicly offering advice and medicine

to the poor without charge, or promising radical cures; or to publish cases or operations in the daily prints, or to suffer such publications to be made; or, through the medium of reporters or interviewers, or otherwise, to permit their opinions on medical or surgical questions to appear in the newspapers; to invite laymen to operations; to boast of cures and remedies, or to perform other similar acts.

"It is equally derogatory to professional character, and opposed to the interests of the profession, for a physician to hold a patent for any surgical instrument or medicine, or to prescribe a secret nostrum, whether the invention or discovery, or exclusive property, of himself or of others.

"It is also reprehensible for physicians to give certificates attesting the efficacy of patented medical or surgical appliances, or of patented, copyrighted, or secret medicines, or of proprietary drugs, medicines, wines, mineral-waters, health resorts, etc."

We believe no open-objection has been made to any of the provisions of the foregoing sections, except with reference to the matter of patenting surgical instruments. It is claimed by those who advocate the propriety of patenting instruments that there is really no difference between that and taking out a copyright on a book. Personally, we can not regard the matter in that light; for, if this be admitted, a parity of reasoning would indorse the propriety of patenting medicines.

In the second important matter connected with the revision of the code—namely, the consultation question—the committee felt that the gravest responsibility rested on them. In dealing with it, they believed that a correct and lasting solution would alone be reached by discarding sentiment and their own personal preferences, and considering the matter from the stand-point of actual fact. It was perfectly well known that consultations between regular physicians and homœopaths were of frequent occurrence. It was also perfectly clear that the disposition to prosecute and discipline offenders for this breach of the code had disappeared. The last case of discipline known to the committee was the Gardiner case, fifteen years ago. It was also deemed probable that, since the homœopaths, by formal resolution, had repudiated their "exclusive" position, and had thus escaped the letter of the code, convictions of offenders would be exceedingly difficult; and that, if a society should convict a member and suspend or expel him, the courts would, on technical if no other grounds, inevitably reinstate him; and a society repeating such action would probably become amenable to the charge of contempt of court, with its attendant consequences, and possibly liable, also, in civil damages to the aggrieved party. It was almost morally certain that no prosecutions of this sort would be undertaken, except by some indiscreet person, for purposes of gratifying private malice. The heresy-hunters of a preceding generation had mostly disappeared, and there were apparently none left who felt it their duty to act as public prosecutors. It was perfectly clear to the committee that the restrictive clause of the code availed only with those who felt themselves in honor bound by its apparent spirit, while it left all others to do as they pleased, free from any anxiety as to the consequences.

Under these circumstances the committee had but two

courses before them—one of which was the preparation of a consultation clause so carefully and tightly drawn that escape from conviction would be impossible, or else to recommend the abolition of all restrictions on the subject, leaving the matter to the individual consciences of all those who were interested. If the first course had been adopted, there is not a shadow of a doubt that the courts would have pronounced it "*contra bonos mores*," and void. The people of the State, as well as the legislators, had already become sufficiently indignant against the profession for assuming an attitude that appeared to them bigoted, intolerant, and inhumane. The rule of the American Medical Association was generally regarded as iron-clad, admitting of no exception; and cases almost without number were known to the committee in which medical men had refused consultation assistance under circumstances that laid them open to the gravest charges of inhumanity, the only excuse given being that the rules of their order forbade them doing otherwise. The code of the American Medical Association, in its true and intentional meaning, is rigid and inflexible; no matter what may be the occasion, a physician meeting or consulting with an "irregular" was liable to discipline. Dr. Flint's humanitarian construction is not warranted by the language.*

The committee, therefore, deemed it both useless and unwise either to retain the rule of the American Medical Association or to recommend the adoption of a stricter one.

The medico-political aspect of the question also received consideration, and from two points of view. In the first place, the effects of the exclusive attitude of the profession on the homœopathic question were duly weighed, and it was the unanimous opinion that the consultation clause of the code of the American Medical Association had, more than any other one agency, assisted the homœopaths to obtain their present position in the estimation of the public, and the abolition of this clause was the first step to be taken if it were desirable that the people should again estimate medical men according to their individual merits, rather than as upholders of this or that doctrine. In the second place, those who had interested themselves to obtain legislation on medical subjects intended to improve the status of the profession of the State were frankly informed that no relief might be expected from the Legislature so long as the profession was at war within itself.

* The Academy of Medicine in this city was certainly the stronghold of the few that were left who appeared to have the disposition, if not the energy or courage, to attempt to re-establish the old order of things, and who, if they could have their way, would, as in the past, lay down for the medical profession strict rules relative to the medicines and doses that should be prescribed, books that should be read, and persons that should be acknowledged as acquaintances. When the writer commenced the practice of medicine it was considered "off-color" or irregular for a physician to prescribe aconite as an anti-pyretic, to read or have in possession a homœopathic or "botanic" book, or to have even a speaking acquaintance with a homœopathic practitioner. Most of those who then ruled the profession have passed to that undiscovered country from whose bourne no traveler hath returned, but the few survivors still maintain their ancient bitterness and hate, and, under the plea of allegiance to the American Medical Association, have joined with those who for other reasons seek to control the affairs of the profession in this State.

When intestine differences were healed, the State would be only too glad to do what it could to elevate and improve the material condition of medical men; but, so long as there were factions, the State would take no action that might perhaps aid one to the detriment of the other. These reasons alone should, in the writer's judgment, have been sufficient to decide the question at issue, but there were others which appeared to the committee to be even weightier. The relation of the profession to the welfare of the community was an element that could hardly be overlooked. To exemplify this point briefly, it may be assumed that the only instance in which a homœopath would desire or ask for a consultation with a regular would be when in the treatment of a given case he had exhausted his own resources, and the patient still remained uncured. Under these circumstances, duty to his patient certainly demanded that he should seek advice and counsel from such sources as in his judgment would be best able to supply them. To this end he solicits the aid of a Thomas, a Flint, or a Sayre, believing that their larger experience in certain departments may throw a clearer light on the pathology of the case, or may enable them to suggest a more successful method of treatment than the one previously pursued. If, now, these gentlemen believe that their own methods are not superior to those commonly pursued by homœopaths, or that their skill is less than that of the physician who seeks their aid, they certainly have valid excuse for declining a consultation. If, on the other hand, the consultant has reason to believe that his experience or skill may contribute somewhat to the recovery of the patient, it would certainly seem that his duty to the individual, and, in a wider sense, to the community, was perfectly clear. To the performance of this duty there has heretofore been but one obstacle—the consultation clause of the American code.

Still another aspect of the question presented itself—namely, the right of a society to lay down any restrictive rules for the guidance of its members which interfered with the free exercise of their talents and abilities in the pursuit of their calling. It may be conceded that there exists in every organized body a necessity for certain rules and regulations relative to its organization and continuance; and it may be contended that individual members should yield some of their personal rights, if the general body to which they belong will be benefited thereby. The present question, however, does not appear to fall within either category, as it certainly will not be claimed that, if A (regular) consults with B (homœopath), C (regular) is injured thereby, or that the fellow-members of A and C receive any detriment as a body from the action of A. We, therefore, fail to see any good reason why A should be restricted in the matter of consultation when either his sense of duty or his inclinations or interests are at stake; and a rule that does so restrict him belongs to the class of rules which American citizens have always regarded as opposed to that liberty of action which is referred to in the Declaration of Independence, and guaranteed by the Constitution of the United States. It is a rule utterly opposed to the principles that underlie the national and State governments of this country.

The foregoing may be regarded as among the moral aspects of the question, and those which most certainly should be the first to be considered; and the committee were of the unanimous opinion that ordinary morality and the welfare of the community demanded that the old rule should be abolished, and the matter of consultation left to the good sense and conscience of each qualified practitioner.

The question of expediency next demanded attention, and more especially in its relation to the sectarian bodies. Would the proposed action aid them to maintain their antagonistic attitude? Or, on the contrary, would it not, by removing the chief excuse for their existence, tend to their gradual extinction? The committee were unanimously of opinion that such would be the effect of the contemplated action.† It must not be supposed, however, that the committee overlooked the relations which the State society bore to the American Medical Association. On the contrary, these were considered most carefully and exhaustively; but, since much misapprehension exists as to the relationship between this body and the various societies which are represented in it, we will briefly state the facts:

The American Medical Association is a voluntary and self-constituted body, without charter or any form of incorporation, amenable to no other authority than its own will, and without power to exercise authority over any other body. At the time of its organization it adopted certain rules by which its future membership should be regulated, which rules have, from time to time, been amended and changed. The association indicates the kind of societies from which it will receive delegates,‡ and the terms on which said delegates will be admitted.* The acceptance of these terms by the various State and other societies simply permitted them to be represented, and to take part in the proceedings of the association.

The association is also composed in part of what are known as "permanent members," namely, persons who once or oftener have served as delegates, and who, in virtue of this fact and an annual payment of five dollars, become entitled to assume the designation.¶ The permanent members, however, do not enjoy equal powers and privileges with the delegates. They are entitled to seats, and, in a qualified sense, are allowed a voice in the proceedings. They can not, however, give practical force to any views that they may hold on topics under discussion, inasmuch as

* The doctrinal changes that had occurred in both the homœopathic and regular schools during the past fifteen years were so great, and in such converging lines, that there was no longer any sufficient *raison d'être* for the continuance of societies whose coherence depended on dogmatic or doctrinal peculiarities, their only real bond of union being one of political defense against the aggressive attitude of the regular profession.

† The very decided confirmation of this opinion by recent events will be shown later.

‡ These are permanently organized State medical societies, and county and district societies entitled to representation in the State societies.

* The adoption of the association's code of ethics.

¶ At one time a single payment of five dollars and attendance on a single meeting of the association were the only requirements for permanent membership.

they are not permitted to vote. It will, therefore, be seen that the practical management of affairs is taken out of the hands of the older and more experienced members and left to the judgment of those who are younger, many, if not most, of whom visit the association for the first time ready to become the veriest clay in the hands of some wily and adroit manipulator.*

It will be seen from the foregoing that the American Medical Association is not in any sense a confederation of State and dependent societies, united by mutual pledges to each other, as is the case with the States forming the Federal Union, but simply a body composed of such societies as find it to their inclination or interest to conform, for the time being, to certain rules and regulations. If, therefore, a State society should place itself in a position that would prevent further continuance of its connection with the association, such action can not be considered as a *secession* in the same sense as a withdrawal of States from the Union would be. It is not a violation of any promise or pledge, but simply the severance of a connection which, in this instance, the committee believed was at the present time, and under present circumstances, a source of injury to the profession of the State.

In the light of these facts and conclusions, the committee decided to report the following for the consideration of the State society:

"Members of the Medical Society of the State of New York, and of the medical societies in affiliation therewith, may meet in consultation legally qualified practitioners of medicine. Emergencies may occur in which all restrictions should, in the judgment of the practitioner, yield to the demands of humanity."

As the subsequent sections of the State code have not been specially criticised, we will not quote or make further allusion to them.

After the committee had agreed on their report, the question of publishing it in advance of the meeting was considered. The committee would have been glad to give it the fullest publicity, but they were without authority so to do. It would have been contrary to custom, and an act of disrespect to the society, for any of its committees to give to the public a contemplated report in advance of its presentation to the body that had ordered it. It was thought proper, however, to show it to some of the ex-officers of the society, and especially to those who, it was supposed, might have opposite views to those of the committee. The writer was responsible for the use of but a single copy

* The constitution of the New York State Society is essentially different. In this body the delegates, in accordance with the statutes of the State, are elected for four years, one fourth of the total number being elected annually and one fourth retiring. At every meeting, therefore, there will be those who are serving in their fourth year, others in their third, and others in their second, while but one fourth of the entire number of delegates can by any possibility be men without experience in society matters. In addition to the delegates, the permanent members constitute an important factor in the society. They are chosen from among such delegates as have served three out of their four years of service, and the number that may be elected annually is limited by the statutes of the State. Permanent members have both voice and vote.

in this manner. It was shown to an ex-president of the society, who, in a letter received the following day, commented on it as follows:

"If the spirit of the new code, which is proposed, and the spirit of the resolution which you read to me as unanimously adopted by the Royal College of Physicians of London, had governed the profession forty years ago, homœopathy would never have attained an elevation, in the opinion of any of the educated or cultivated portion of the community, as an antagonistic school in medical science. Both the profession and the public would have been saved much evil."

The action of the State society on the report of the committee and the events that followed will be considered in our next.

REPORT OF TWO CASES OF SYPHILIS OF THE LUNGS.

By DR. H. RAPHAEL,

ATTENDING PHYSICIAN FOR DISEASES OF THE GENITO-URINARY ORGANS AND SYPHILIS, BELLEVUE HOSPITAL, OUT-DOOR DEPARTMENT.

CASE I.—C. B., aged thirty-eight, merchant. First consulted me for syphilitic ulceration of the larynx. On examination with the laryngoscope, the entire right side of the larynx was found to be ulcerated, involving the right vocal chord; the left was also thickened and red in color. As a consequence, he was unable to talk louder than in a whisper. He also presented the characteristic copper-colored patches on the skin peculiar to syphilis, enlargement of post-cervical and other glands, and a node on the right tibia and left clavicle. The primary lesion on his penis had been cured some five or six years previously. He was under treatment at various times, but never followed out a systematic course, ceasing to take medicine as soon as improvement commenced. In January, 1879, he again consulted me for a violent dyspnoea, accompanied by a dry cough, which came on suddenly, giving him no rest by day or night, and compelling him to absent himself from his business. Of late he had been losing flesh very rapidly, and that, together with his cough, alarmed his friends very much. On percussing his chest, a distinctly dull, circumscribed spot was found on the right side, in the vicinity of the nipple, and, on auscultation, that part of the lung was found to be impervious to air, no respiratory sounds whatever being heard over the corresponding part. Some three weeks' active treatment with small doses of mercury and tolerably large doses of iodide of potassium and iron and other tonics was necessary to restore him to a condition to enable him to attend to his business. His dyspnoea and other chest troubles disappeared, and the respiratory murmur was again audible all over the thorax; the nodes and the other syphilitic phenomena were also immensely improved.

CASE II.—Charles A., aged thirty-three, clerk. First contracted a chancre some five years before he came under my care. For that he was treated while he was out West. About a year subsequent to that an eruption appeared on the skin, for which he was treated by the administration of corrosive sublimate hypodermically. The result of this method of treatment in this case was not satisfactory, for

the patient not only was not cured of his syphilis, but indurated ulcerations formed at the places of the subcutaneous injections of the mercury. By the use of inunctions and mercurial vapor-baths the eruption and indurations gradually disappeared, leaving only the well-known copper-colored spots and cicatrices at the places of the ulcerations. Two years later he had an attack of iritis of the left eye, accompanied by intense osteocopic pains, which were always aggravated toward evening. From this attack he recovered under the use of large doses of iodide of potassium internally, and atropine to the eye. Three years after that he had an attack of pain in the chest, cough, and dyspnoea, evidently due to some morbid process or deposit in the lungs, characterized by distinctly circumscribed dullness on percussion and the total absence of respiratory sound. He was again given a course of mercury (inunctions), and large doses of iodide of potassium internally, with the result of not only improving his chest trouble, but his general condition, so that he was soon able to resume his usual vocation.

In both of these patients there were present, in addition to the characteristic features of syphilis, most of the subjective and some of the objective symptoms of phthisis, namely, dullness on percussion over a circumscribed area, absence of the respiratory murmur, emaciation, dyspnoea, short, hacking cough, etc., etc. Both had been told that they were suffering from phthisis, and the question naturally occurred whether the phthisis, if it could be considered in that light, was a complication of the syphilis, or these symptoms were simply occasioned by the morbid syphilitic deposits in the lungs. This pathological condition may be originally one of two forms, either as a diffused or a circumscribed deposit; sometimes, however, both forms are found combined in one individual.

In the diffused syphilitic disease of the lungs the diseased parts are generally of a firmer consistence, heavier, and of smoother surface. The infiltration may be found in one or both lungs, or only parts of each. The infiltrated parts are almost totally airless, grayish-red or grayish-yellow in appearance, smooth, homogeneous, with slightly opaque secretion. The bronchi are generally patulous, and contain a considerable amount of purulent secretion and but little air. The mucous membrane of the part is pale in color, smooth, and in the larger bronchi somewhat thickened; the bronchial glands are almost always enlarged.

Often the entire lung, especially in congenital syphilis of the new-born, has a peculiar pale, whitish color, a condition which was first described by Virchow as "white hepatization of the lung during intrauterine life." Hecker, however, was the first to regard it as a result of syphilis. As we will see further on, the diffused syphilitic infiltration is more frequently found in the new-born than in the adult; the nodular form is the most frequent kind encountered in the latter. Now and then we see near the diffused infiltration, near the periphery, circumscribed knots of the size of a pin's head up to that of a cherry, grayish-yellow in color, somewhat prominent nodules, which were first described by Depaul, and subsequently by Lebert and others.

The histological process in the diffused syphilitic infiltration consists essentially in a thickening of the interstitial

structure. The interlobular as well as the connective tissue lying between the alveoli are permeated by numerous spindle-shaped and roundish cells, and this exuberance seems in reality to start from the walls of the vessels and of the bronchi; especially of the former are the endothelial cells found to be enlarged, often containing numerous granules; at the same time white blood corpuscles accumulate in the altered vessels, by which the capillaries may become transformed into solid cellular or fibrous strings; on the larger vessels, relatively larger exuberations of the adventitial connective tissue take place. Whether the lymphatic vessels become diseased in the same manner as the blood-vessels it has not been possible to show. Through the interstitial exudation the alveoli become compressed, and within them the epithelial cells, which have in greater part degenerated, are seen quite distinctly. In the further progress of the disease, rapid disorganization of the contents of the alveoli ensues. At the commencement of the disease the diffused syphilitic form is mostly of a lobular, peribronchial distribution. The lung, in this stage of the disease, which may be designated as a miliary syphiloma formation, is permeated by numerous very fine peribronchial nests or depôts of exudation.

According to Wagner, the microscopic examination shows the pulmonary tissue to be entirely airless, the alveolæ almost totally gone, and where any still remain they are only one fourth or one sixth as large as those that are seen in children who have already respired. The intra-alveolar tissue is greatly increased. This augmentation of the intra-alveolar tissue is due to the closely lying, medium-sized round free granules, about two hundredths of an inch in diameter; also some round, large-grained kernel-cells; in most places also a rich albumin and fat molecules, between which, in some places, simply atrophied or fatty degenerated granules and cells still remain; between the granules, cells, and molecules, a sparsely homogeneous, seldom distinctly fibrous ground substance is found, but nowhere is there any fibrous connective tissue to be seen. The mucous membrane of the bronchi is at the same time uniformly infiltrated; here and there some rough, thickened elevations are also to be seen, caused by an increased accumulation of thickened cells and granular infiltration.

The nodular infiltration which occasionally is found along with the diffused infiltration essentially displays the same structure as the latter, only the cells are found in greater abundance. Here, also, it is simply an exuberance of the interstitial tissue, only it is circumscribed in character.

These circumscribed, large nodes, the actual syphilomata of the lungs, are by far more characteristic than the diffused, and, while the latter are almost exclusively found in the new-born, the true syphilitic gummata are most frequently met with in the adult.

According to Fournier, the syphilitic gummata are rarely found singly; generally several of them are found at the same time, seldom, however, more than ten in a given case. Most frequently they are situated in the middle and lower lobes; occasionally they are also seen in the apices, in contradistinction from pulmonary tubercular deposits, which, as is well known, are met with in the apices mostly. They

vary in size, from that of a pea to that of an egg; generally they are roundish in shape, rarely ragged, grayish-red or yellowish-gray in color, homogeneous and slightly moist, distinctly circumscribed, but not encapsulated. According to Cornil, however, these nodules are sometimes surrounded by a glistening, fibrous zone. The pulmonary tissue, at the places occupied by the syphiloma, is entirely gone, and the parts between the nodes are often intensely infiltrated.

As already stated, the nodes, which at first are of a grayish-red or brownish-red color, and slightly moist, gradually become soft, the softening progressing from the center to the periphery, assuming more and more a yellowish color. At this time the gummatous nodes may partly or even entirely become absorbed, or be expelled through the bronchi, and in their places cavities of various sizes may remain, which gradually contracting, there then results a cicatricial puckering of the lung tissue, analogous to a condition found in tuberculosis.

In the diffused form of pulmonary syphilis, the differentiation from ordinary catarrhal inflammation of the lungs is as difficult to-day as it was twenty years ago, when Virchow stated that there was nothing characteristic between them. Still, the gummata of the lungs present characteristic signs sufficient to render them distinctive with some degree of certainty, especially where the other morbid lesions of syphilis are found; and these will scarcely ever be absent where the disease has made such inroads upon the pulmonary organs.

The gummata of the lungs are distinguished from tubercles of the lungs by their color and consistence, by frequently appearing on one side only, generally in the middle and lower lobes, seldom in the apices, by the fewness in number of the nodes, by their size, and finally, as Virchow has shown, in addition to the clinical history and concomitant morbid syphilitic lesions, by the presence of a connective-tissue-like matrix, constituting the pulmonary nodes.

Nevertheless, the difficulty of a positive diagnosis of pulmonary syphilis is increased by the fact that in many cases of syphilis, whether of the diffused or circumscribed form, phthisis pulmonum and tuberculosis very often become superadded in the course of syphilis—a fact that has been noticed by many writers on the subject.

Hence, only then will it be advisable to consider with certainty, even at the autopsy, any given case as being syphilitic disease of the lungs, where, in addition to the pulmonary lesions, other indisputable evidences of syphilis are found in the bones, liver, larynx, scars on the skin, etc.

As regards the ætiology of the disease, it is now generally admitted that pulmonary syphilis is the result of an infection with syphilitic virus; but it is not always so easy to say in which stage of the syphilitic disease the lung has become involved.

In hereditary syphilis, the disease generally leads to an early death, most of the children dying, in fact, in a few days, or, at the most, weeks after birth; most, indeed, are born dead, and but few cases of congenital syphilis in which pulmonary syphilis developed itself and was recognized in early infancy are recorded in medical literature.

A very important point in the chronology of the dis-

ease is as regards the time of the appearance of the pulmonary lesion. In most of the cases found recorded in medical literature the disease in the lungs appeared between two and five years after the patient contracted the chancre; still, cases are also known where the disease of the lungs manifested itself as late as twenty years after. In the first case reported above, the pulmonary affection developed itself six, and in the second case some five years after the patient became infected with syphilis.

The symptoms of pulmonary syphilis, so far as the functional disturbances and the morbid alterations that can be demonstrated are concerned, vary, of course, according to the degree and duration of the disease, and also whether or not other organs are more or less involved in the disease.

The first symptoms of which the patients complain are usually a tickling sensation in the throat, slight cough, and a feeling of oppression in the chest. Afterward, cough, with or without expectoration, comes on. These symptoms gradually increase in severity. The difficulty in breathing increases, the cough becomes more severe, the expectoration, which hitherto has been very sparse and but slightly slimy, increases in quantity, becomes more purulent, now and then tinted with blood. As the disease progresses, severe hæmoptysis may also supervene, according to Leudet, and, in addition to the dyspnoea, intense spasmodic asthma may become superadded. Many of these symptoms, however—such as tickling and pain in the throat, dysphagia, hoarseness, etc.—are undoubtedly caused by the syphilitic ulcerations in the throat, which are almost always present in these cases.

These functional disturbances generally keep pretty even pace with the progress of the morbid lesions in the different organs.

The percussion of the lungs gives a dull, or even a perfectly flat sound, most frequently confined over the middle and lower lobes; less frequently does it extend to the apices. On auscultation, some undefined sounds and bronchial breathing are heard, generally accompanied by large and small bronchial *râles*; occasionally amphoric breathing and metallic tinkling are also heard, according to some writers; the vocal fremitus sometimes is quite feeble, and then again increased, according to the site of the indurated node.

This picture of pulmonary syphilis, in general, from the foregoing description of the symptoms and course, can not at first sight be distinguished from phthisis pulmonalis, as has been already observed; but, by a thorough examination and a careful history of the patient and of his condition, the true nature of the disease will soon be detected.

The course of pulmonary syphilis is generally slow and without any fever; still, it may be rapid in its course and attended by smart fever. Generally the system is not so much affected, nor so quickly undermined in syphilis of the lungs, as in phthisis. These are the great distinctive features in the course of the two affections, and serve to distinguish them from each other. Generally the disease remains confined to one lung, or to a portion of the lung, for a long time; later in the course of the disease, fever may supervene, and then the system becomes affected. Undoubtedly these are the cases where recoveries have taken

place, and cures are claimed to have been effected from phthisis by the administration of iodide of potassium.

The diagnosis of syphilis of the lungs rests mainly upon the following points: The functional disturbances and the demonstrable pathological alterations in the lungs, the course of the disease and the influence the treatment has upon it, the clinical history, and the coincidence of syphilis in other organs.

As has been already said, the functional disturbances are by no means characteristic enough to base upon them a positive diagnosis of specific disease of the lungs. All the symptoms described above are also met with in other pulmonary affections, especially phthisis.

Nevertheless, a thorough examination and observation of all symptoms furnish sufficient data for an accurate differentiation of syphilis from phthisis of the lungs. Hence, when a patient presents marked functional disturbances of the thoracic viscera, due to demonstrable pathological alterations in his respiratory organs, yet is not markedly emaciated, it will be well to bear in mind that syphilis may be at the bottom of the trouble, and he should be examined more closely than ever. If the patient is the progeny of healthy parents, was hitherto free from pectoral complaints, and now presents evidences of secondary, or, still better, of tertiary symptoms, the probability that he is suffering from syphilitic disease of the lungs is vastly increased. This probability attains to a certainty when the morbid alterations are unilateral, and chiefly in the middle and lower lobes, while the apices are free from disease.

Another point in the diagnosis of syphilis of the lung is this: That a phthisical patient may also become infected and syphilitic without his being for that reason affected with disease of the lungs of a specific nature; and, again, a pronounced syphilitic individual may acquire an ordinary phthisis which has nothing in common with pulmonary syphilis. The two morbid processes must be strictly differentiated from each other, however much they resemble each other, and however great an influence one disease may exercise in developing the other, for one disease always promotes the development and progress of the other.

It is an indisputable fact, as has been pointed out by Schnitzler, that persons who are prone to acquire catarrhal inflammation of the lungs will, under similar circumstances, more readily acquire syphilis of the lungs than others whose respiratory organs were sound previous to their becoming infected, and, conversely, syphilitic persons will frequently become consumptive who, without this cause (syphilitic infection), probably never would have become phthisical.

The same is true with the affections of the larynx. Those suffering from chronic catarrh of the larynx will, if they become infected, manifest the evidences of syphilitic disease of the larynx more frequently and more intensely than those who are free from laryngeal disease, very slight catarrhal erosions in the former quickly becoming transformed into specific ulcerations; conversely, it has been seen in cases of constitutional syphilis that phthisis of the larynx and of the lungs will be developed, though no other cause can be discovered than that of the specific disease.

The treatment of syphilis of the lungs can be disposed

of in two words—mercury and iodide of potassium—simply because these are the only two remedies in our pharmacopœia that exercise any influence over the disease under consideration. But we must bear in mind that the lungs, like other delicate and important organs—the brain, for instance—are liable to become irreparably damaged by delay. Hence, it will not do for the physician to try an expectant treatment, or direct the patient to migrate to a different clime. He should at once put the patient upon a full course of active treatment with mercury and iodide of potassium. Some physicians maintain that mercury should only be used in the secondary, and the iodide in the tertiary stage of syphilitic disease; but as it is not always possible to separate the different phases of the disease, and as it is by no means certain to which of the stages of syphilis the pulmonary complication belongs, it will be found necessary to administer both these remedies at the same time. I am certain that the efficacy of the iodide is increased by the addition of small doses of mercury, say one twentieth to one twelfth of a grain of the bichloride three times daily; of the iodide I give comparatively large doses—from half a drachm to one drachm three times daily. For the anæmia and the debility accompanying this condition, the various preparations of iron, especially the potassio-tartrate, and the best hygienic measures and food, will be necessary.

Book Notices.

A Treatise on Fractures. By LEWIS A. STIMSON, B. A., M. D., Professor of Surgical Pathology in the Medical Faculty of the University of the City of New York, etc. With three hundred and sixty illustrations on wood. Philadelphia: Henry C. Lea's Son & Co., 1883. Pp. xvi-33 to 598, inclusive.

An excellent book, as sensible as it is plain and unassuming. Without any attempt to give himself prominence by quoting a long list of his own cases, Dr. Stimson has written a thoroughly practical volume, which, while a valuable guide to the student, will constantly lead him to depend upon his own resources. The one effort of the author seems to be to convince his reader that in the treatment of fractures no amount of theoretical knowledge, and no elaborate surgical appliances, can excel the most ordinary mechanical agents directed by good common sense.

The opening chapters deal with the varieties of fractures, their ætiology, diagnosis, and the general methods of treatment. Chapter VI treats of the processes of repair, and is clear and practical, avoiding the histological details which are so puzzling to the beginner in treatises on surgical pathology. Under the head of treatment (Chapter VIII) considerable attention is devoted to the plaster-of-Paris dressing, of which the author approves, though he adds cautiously that "its limitations, as well as its merits, must be recognized." "I should hesitate," he says, "to apply it immediately after the accident, if the patient could not be frequently seen during the next forty-eight hours."

It will be noted with some surprise that in such a work as this so little attention is given to compound fractures. Whether or not the writer judges that no written descriptions can equal practical experience in the treatment of this important class of injuries, certain it is that only nine pages are devoted to the subject. The antiseptic method and that of "through-drainage" are briefly described, but for additional information the reader looks in vain in the subsequent chapters.

With Chapter XII begins the discussion of special fractures, those of the skull, the vertebræ, and the bones of the face being first considered. The chapters on fractures of the upper extremity will be read with interest and profit, though it is to be wished that the paragraphs on diagnosis and differential diagnosis were more complete. The discussion of Colles's fracture is quite exhaustive; in fact, it seems as if a disproportionate amount of space had been allowed to it.

Chapters XXV to XXVIII, inclusive, deal with fractures of the lower extremity; that on fractures of the femur is commendable as to its length and thoroughness. Scattered throughout the book are numerous valuable statistics, for which the author is largely indebted to Gurlt. Frequent reference is made to the work of American surgeons.

The volume is attractively set forth, with clear type, excellent illustrations, and both a table of contents and an index. We prophesy its future usefulness and popularity, since it avoids useless details, and is not overcrowded with descriptions of cumbersome and unpractical surgical apparatus. While the student may at times complain of too great conciseness, especially in the subject of diagnosis, he will, on the other hand, be spared elaborate dissertations on treatment, and will be taught to think out each case for himself as it occurs. The book is characterized by a total absence of anything like egotism. It expresses the results of combined experience, not the theories of an individual.

A Text-Book of Pathological Anatomy and Pathogenesis. By ERNST ZIEGLER, Professor of Pathological Anatomy in the University of Tübingen. Translated and Edited for English Students by DONALD MACALISTER, M. A., M. B., M. R. C. P., Fellow and Medical Lecturer of St. John's College, Cambridge. Part I—General Pathological Anatomy. London: Macmillan & Co., 1883. Pp. xvi-360. [Price, \$3.50.]

This is an excellent translation of Professor Ziegler's manual, a work intended to be somewhat elementary, yet coming within the scope of a scientific treatise. Though adapted to the use of the beginner, the notes and references added by the author and the translator, and the interesting chapter on parasites, will render it of value to the more advanced student.

The general plan of the book (if there is one) is somewhat irregular. The initial section, on monstrosities, is unnecessarily extended, while the succeeding section, on the important subjects of hyperæmia and anæmia, hæmorrhage and embolism, is most incomplete. Under Sections III and IV, on disturbances in nutrition, are included all the forms of degeneration. The definitions are brief, but clear, and are fully illustrated by excellent woodcuts.

Under Section V, on inflammation, are included not only the different forms ordinarily mentioned in works on general pathological anatomy, but the growths which the author terms "the infective granulomata," such as tubercle, gumma, and lupus. The discussion of tubercle will be read with considerable interest, in view of the recent experiments of Koch, with whom Ziegler seems to be in full accord.

Section VI is devoted to tumors, and is the best in the book, in our opinion, as the author speaks more from his own experience. He takes occasion to differ from Cohnheim in regard to the pre-natal origin of morbid growths, and, as the result of his personal experiments and observations, rejects the possibility of secondary cancerous formations arising by a transformation of pre-existing tissues. His explanation of the ætiology of tumors is rather obscure, as he speaks of the "intrinsic predisposition" of a tissue to a certain form of morbid growth. The closing section of the book is devoted to parasites, Chapter XXX, on

bacteria, being exhaustive. The reader will find a clear statement of all that is at present known with regard to these organisms, while the text is enriched with numerous references. Ziegler is an enthusiastic believer in the parasitic origin for many diseases. He even goes so far as to accord to each bacterium "special physiological properties," though he affirms that he does not believe that "the specific bacterium constitutes a distinct species in the biological sense." A carefully prepared index of authors and subjects concludes the book.

The work of the translator is above criticism. He has avoided idioms and long, awkward sentences, and has given us clear, readable English. The woodcuts are new and beautifully executed, and are evidently faithful copies of nature. It is refreshing to look at a drawing of a microscopic section and feel that it has not been constructed largely by the aid of the artist's imagination.

BOOKS AND PAMPHLETS RECEIVED.

A Year's Work in Ovariectomy. By William Goodell, M. D., Professor of Clinical Gynæcology in the University of Pennsylvania. [Reprint from the "Medical News."]

The Dispensary of the United States of America. By Dr. George B. Wood and Dr. Franklin Bache. Fifteenth edition, rearranged, thoroughly revised, and largely rewritten. With illustrations. By H. C. Wood, M. D., Member of the National Academy of Science, etc., Joseph Remington, Ph. G., Professor of Theory and Practice of Pharmacy in the Philadelphia College of Pharmacy, etc., and Samuel P. Sadtler, Ph. D., F. C. S., Professor of Chemistry in the Philadelphia College of Pharmacy, etc. Philadelphia: J. B. Lippincott & Co., 1883. Pp. viii-1,928. [Price, \$8.]

The Practitioner's Ready Reference-Book. A Handy Guide in Office and Bedside Practice. By Richard J. Dunglison, A. M., M. D., etc. Third edition, thoroughly revised and enlarged. Philadelphia: P. Blakiston, Son & Co., 1883. Pp. x-529. [Price, \$3.50.]

On the Relation of the Chest Movements to Prognosis in Lung Disease, and on the Application of Stethometry to Examinations for Life Assurance. By Arthur Ransome, M. D., M. A. (Cantab.), Physician to the Hospital for Consumption and Diseases of the Throat, Manchester, etc. With illustrations. London: Macmillan & Co., 1882. Pp. ix-100. [Price, \$2.50.]

A Treatise on Insanity in its Medical Relations. By William A. Hammond, M. D., Surgeon-General United States Army (Retired List), etc. New York: D. Appleton & Co., 1883. Pp. xiii-9 to 767, inclusive.

Materia Medica, for Physicians and Students. By John B. Biddle, M. D., late Professor of Materia Medica and General Therapeutics in the Jefferson Medical College, Philadelphia. Ninth edition, revised, rewritten, and enlarged, in accordance with the Sixth Revision of the U. S. Pharmacopœia, by Clement Biddle, M. D., U. S. N. With numerous illustrations. Philadelphia: P. Blakiston, Son & Co., 1883. Pp. xx-17 to 537, inclusive. [Price: cloth, \$4; sheep, \$4.75.]

Transactions of the New York Academy of Medicine. Second series, volume three. Printed for the Academy, 1883. Pp. xi-205.

Observations on Lithotomy, Lithotripsy, and the Early Detection of Stone in the Bladder, with a Description of a New Method of Tapping the Bladder. By Reginald Harrison, F. R. C. S., Surgeon to the Liverpool Royal Infirmary, etc. London: J. & A. Churchill, 1883. Pp. 71.

The Symptoms and Diagnosis of Malaria in Children. By L. Emmett Holt, A. M., M. D., etc. New York: William Wood & Co., 1883. [Reprint from the "American Journal of Obstetrics."]

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THE ALLEGED OATH TAKEN BY FELLOWS OF THE
ACADEMY OF MEDICINE.

It has been represented to us that some of our readers have misinterpreted certain remarks made in the leading editorial article of our issue of the 12th instant. Those remarks were as follows: "As to the alleged oath, or something of the nature of an oath, we may say, in the first place, that nothing of the sort is to be found in the published requirements for fellowship, and that, being therefore not necessary to be signed, if it has any existence at all it has been interpolated surreptitiously, has been signed in ignorance if signed at all, and has not the slightest particle of validity."

Our informants have shown us that the following pledge is printed at the head of the list of signatures of the Fellows of the Academy: "The subscribers, being constituted Fellows of the Academy of Medicine, the constitution and by-laws of which are hereunto annexed, do hereby pledge their honor to conform themselves thereunto so long as they shall severally remain members thereof. In testimony whereof, they have hereunto annexed their respective signatures." Our informants very properly maintain that this pledge is "of the nature of an oath," that it has not been "interpolated surreptitiously," and that it has not been "signed in ignorance."

Now, we did not state that there was no pledge at all, for every corporate body pledges its members, either by implication or in an expressed formula, to abide by the rules of the organization. The gentlemen to whom we refer failed to understand our statement in the paragraph in question, simply because they omitted to connect it, as it ought to be connected, with a preceding passage in the same article, in which we said: "We have heard it gravely stated, for instance, not only that a Fellow of the Academy was bound to conform to its code of ethics so far as his individual acts were concerned, but that he was bound to uphold that code in every possible way—that, in fact, he was debarred from opposing the adoption or the maintenance of that code in other organizations, or even expressing an opinion unfavorable to it. It has been stated, too, that every Fellow signed his name, at the time of joining the Academy, to an engagement of the nature of an oath binding him to the course here defined."

We submit that the pledge that heads the list of signatures does not bind a Fellow of the Academy to "the course here defined." Therefore it does not fall within our statement. We said that, if there was any such pledge, it had been "interpolated surreptitiously," etc. It turns out, however, as we supposed, that no such pledge has ever existed. Consequently our statement was literally true.

THE TYRANNY OF DOGMATISM IN MEDICINE.

WE have taken a great deal of satisfaction in the perusal of a collection of introductory addresses* by Professor Gairdner, of Glasgow, especially of that portion of one of the addresses in which "medical orthodoxy and heresy in the olden time" are considered. The addresses as a whole are replete with illustrations and reasoning of the most scholarly and creditable sort pertaining to the past and present status of the medical profession, and to the means by which medicine is likely to be most advanced; but the particular section to which we have referred has so direct a bearing upon the intolerance of dogmatism that no more wholesome reading, we are persuaded, could at the present time be offered to those who are inclined to play the part of the extremist in the contention now going on over medical ethics.

An exquisite specimen of the tyranny of dogmatism in the middle of the seventeenth century is given in the following passage quoted from Molière's "Le malade imaginaire," in which it is said of Thomas Diafoirus: "He is firm in disputing, strong as a Turk on his principles, never gives in an inch of his opinion, and pursues a verbal argument into the very uttermost recesses of logic. But, above everything, that which pleases me in him, and in which he follows my example, is that he attaches himself blindly to the opinions of our forefathers, and that he has never chosen either to comprehend or to listen to the reasons and the experiments of those pretended discoveries of our age touching the circulation of the blood, and other opinions of the same kidney."

The stubborn and protracted fight made by the regular faculty against the innovations of those who had the hardihood to investigate and talk about the medicinal properties of certain drugs that were held to be "quackish," simply because Galen and Hippocrates knew nothing of them, because they were vaunted by avowed charlatans, like Paracelsus, or because their vogue rested in some measure on the statements of the chemists, including such substances as antimony and opium—all this is recounted, and a startling picture is drawn of the rank spirit of the times that led men of essentially correct minds, such as Gui Patin, to bring every engine of repression to bear against those of their own number who displayed the slightest disposition to look into the merits of novel doctrines.

The warning we should take from this misguided and fanatical zeal of the past is not difficult to make out. It is, that we should free ourselves wholly from intolerance. We have already reached a state in which we can look calmly on doctrines that do not commend themselves to our understanding. We do not now persecute men on account of any sort of therapeutical belief, no matter how ridiculous it may seem to us. It would be better for us now if we had never done so, and it would be well for us if we could extend the same toleration into the do-

* "Medical Education, Character, and Conduct. Introductory Addresses," etc. By W. T. Gairdner, M. D., Professor of Medicine in the University of Glasgow, etc. Glasgow: James Maclehose & Sons, 1883. Pp. 80.

main of ethical opinions, and not jump hastily to the conclusion that whoever contends for what seems to us to be wrong is necessarily an enemy to the common good.

APOTHECARIES' MISTAKES IN DISPENSING MEDICINES.

In a paper recently read before the California Pharmaceutical Association, published in the May number of the "Pharmacist and Chemist," Mr. W. M. Searby discourses very temperately, and therefore all the more forcibly, upon some of the perils that beset even the most capable and painstaking apothecary in the daily pursuit of his calling, showing that circumstances may make it appear that he has committed a terrible blunder when in fact he has done nothing of the sort. Mr. Searby illustrates his remarks by the following incidents that have occurred in his own experience:

A young woman had a prescription prepared in my store. It contained muriate of ammonia, and some other not powerful remedies. When the bottle was empty, her physician ordered it to be refilled. Soon after taking the first dose out of the second bottle she commenced to vomit violently, and continued to do so for twelve hours or more. She said she had taken nothing but the medicine, so the doctor was summoned, and, from the symptoms, he suspected mineral poisoning. He came to me with the conviction on his mind that I had poisoned the girl, and at this time her life was in serious danger.

He brought with him a portion of the medicine, and a quantity of deep-green liquid, about the color of a strong solution of nitrate of copper, which she had ejected from the stomach. Fearing that I might possibly have blundered in some unknown and unaccountable manner, I tested the medicine, and found it free from poison. I asked the doctor to send the remainder of the medicine to an analytical chemist, which he did, and the result was my vindication. In the mean time, however, the girl stoutly maintained that she had been poisoned, and her employers were strongly inclined to believe her. During the investigation I was the victim of unwarranted suspicion, and, if the prescription had only called for one dose of medicine, it would have been impossible for me to clear myself, for as it afterward transpired that she had once before attempted suicide by arsenic (which was not known at the time of this event), and all the symptoms this time favored arsenical poison, I should probably to this day have been credited with dispensing arsenic in place of muriate of ammonia.

In the other case, a woman had a prescription for an ordinary tonic made up in my store. Soon after she had taken the first dose she manifested clear symptoms of poisoning by strychnia. The physician was quickly summoned, and, by the use of proper remedies, fatal results were averted, though her life was in the greatest danger. Of course, suspicion at once fell on the apothecary, but a closer examination of the phial showed a small crystal caught in between the neck of the bottle and the cork. This looked and tasted like strychnia. Surely, the doctor thought, no pharmacist would put strychnia into a bottle in that way. Diligent search was made, and an empty strychnia bottle found in the woman's pocket. This cleared up the mystery. When asked why she had put the poison into her medicine, she replied she wanted to get the doctor into trouble, because he had annoyed her, and she wanted to die in such a way that he would get blamed for killing her. But her criminal insanity came near being disastrous to me instead of the doctor. Had the tell-tale bottle not been found, an analysis of the medicine would have shown conclusively the presence of a large amount of strychnia, and how could the pharmacist prove that he had not put it there? He surely would have received credit with the public for having dispensed poison, and his business would undoubtedly have suffered greatly—perhaps irreparably.

There are few things that seem to give more solace to the ordinary human being in affliction than to throw the blame of

his bereavement on some fellow-mortal; and the pretext for doing so is often of the flimsiest. The bare assertion of a chatterer of this sort has its damaging effect on the victim's peace of mind, even if it does not work injury to his business or to his social standing. No matter how baseless the charge, by frequent repetition it tells with the multitude, always ready to see any flaw that imagination or malice can conjure up. How much more must that man suffer who, as came near being the case in the instances here quoted, finds himself surrounded by a web of circumstantial evidence that he can not break? Surely none better than medical men can appreciate the distressing position of a pharmacist under injurious allegations that are supported by all the known facts in the case, however strong the accused may be in the consciousness of his own innocence; and, on that account, members of our profession ought not only to be the last to press the force of such circumstances, but, on the contrary, to urge the element of doubt in defense of the person so unfortunately situated.

AN OUTBREAK OF TRICHINIASIS IN SPAIN.

A RECENT number of the "Gazette hebdomadaire de médecine et de chirurgie" contains a portion of a letter addressed by Dr. A. L. Henriquez, of Malaga, to the editor of the "Gaceta Médica de Barcelona," recounting several cases of trichiniasis observed in Malaga last February. In one instance the patient was known to have eaten of American ham, and the ham was found to be trichinous. In several other cases sausages were mentioned as the only article of food to which suspicion could attach. The sausages, however, do not seem to have been examined, nor are we told from what country they were obtained, although the American origin of the ham in question is set forth in italics.

If our European contemporaries would take a little pains to repress their seeming exultation when they find themselves able to trace an outbreak of this sort to American pork, they would strengthen the hands of those in this country who are endeavoring to impress upon the Government, and upon the gentlemen of the pork trade, that it is better to try to make the American hog what he ought to be than to follow the policy of denying that he is trichinous. As it is now, the force of the observations they publish is decidedly weakened by the obvious animus that pervades the accounts.

THE NEW-CODE CAMPAIGN.

It is reported that the Advisory Council of the Association for Preventing the Re-enactment in the State of New York of the Present Code of Ethics of the American Medical Association has determined upon publishing a volume designed to influence the profession in favor of the object of the association. If the book is strictly argumentative, it will doubtless answer the purpose intended; if, however, it contains passionate appeals to State pride, if it pays much attention to side issues, and, above all, if it is intemperate or even warm in its allusions to the American Medical Association or to individuals, it will tend to defeat the object in view.

It is stated, also, that the council intends to publish evidence that some of the prominent supporters of the old code have made a practice of consulting with homœopathic practitioners. We do not hesitate to say that, if this course is pursued, the association will at once lose the support of those who are willing to work for the principles at issue on the plan thus far followed, but who would turn from that work with disgust the moment it became evident that tactics of this sort were to be brought into play. In our opinion, the council can not be too careful in its communications to the profession.

COPPER AS A PROPHYLACTIC OF TYPHOID FEVER.

M. BURQ, of "metallo-therapy" fame, has brought to the attention of the Paris Academy of Sciences certain considerations which show, he thinks, that workmen in copper acquire a decided immunity from typhoid fever, or at least an unusual capability of recovering if attacked by that disease. Taking the mortality from typhoid fever as 1.3 for every thousand of the population during the recent epidemic in Paris, he remarks that at the same rate the disease ought to have caused fifty-two deaths among workers in copper, even including in the estimate of their number all whose connection with the business is merely nominal. In point of fact, only thirty-nine such deaths occurred, and, by a process of exclusion which he seems to regard as justifiable, M. Burq reduces the number to three. Even in two of those instances circumstances are mentioned that he thinks tended to interfere with the protective influence of the copper. Curiously enough, in one of them a "deplorable" hygienic environment is suggested as having overcome the salutary action of the copper, while in the other one the exceptionally good ventilation of the workshop is thought to have diluted the cupreous emanations to such a degree as to render them inadequate to the effect they would have produced under ordinary circumstances.

A PHYSIOLOGICAL PARADOX.

M. KANELIS recently discovered accidentally that section of the sensory root of a spinal nerve seems to result in a notable exaltation of the excitability of the motor root. The experiment is as follows: Laying bare the whole medullary canal of a frog, the roots of all the nerves are divided, save only the motor and sensory roots of one nerve. The motor root is now stimulated with the faradaic current, and the strength of the current is reduced to the minimum at which it produces any appreciable effect. The coil is then disconnected, and the current becomes too feeble to excite contraction. On dividing the sensory root, however, the same current provokes energetic contraction.

Proceedings of Societies.

NEW YORK SURGICAL SOCIETY.

(Concluded from page 552.)

HYGROMA OF THE TONGUE.—Dr. GERSTER presented a specimen of congenital hygroma of the base of the tongue removed from a girl thirteen or fourteen years of age. This cystic swelling was noticed quite early in life. The child was brought to him by Dr. F. Serr. He found a tumor of the size of a rather large English walnut, occupying the most posterior portion of

the left side of the tongue, extending about two thirds of the length of the tongue forward, and reaching posteriorly to the anterior pillar of the fauces. By a puncture and examination of the contents, he diagnosed hygroma. Finding that the empty sac had rather thick walls, and recollecting that he had had an unsatisfactory experience in treating these tumors by any of the methods commonly employed, he decided to lose no time, but to attack the growth and remove it entirely. He first ligated the lingual artery; he then held the mouth open by the use of Whitehead's speculum. A fillet was passed through the base of the tongue, and with this the organ was pulled well forward. The tumor was then exposed by an incision carried along the edge of the tongue, and the sac excised by means of the forceps and a pair of scissors. The hæmorrhage was so very slight that the excision could be performed rapidly. The cavity was mopped out with a five-per-cent. solution of carbolic acid, and the edges of the wound were stitched together with very fine silk. He carried the incision along the edge of the tongue purposely, in order to bring it into the portion of the oral cavity where the dressing could be retained without difficulty. A piece of gauze powdered with iodoform was placed between the tongue and gums opposite the line of incision, and it was retained in that situation for thirty-six hours. When it was cast out, the wound was found without irritation and united. Likewise did the deligation wound heal by first intention. The subsequent progress of the case was very favorable, and the child was dismissed from the hospital, cured, on the fifth day. He thought that complete extirpation of these growths was the most advisable method of treatment, especially for dermoid cysts, which occasionally grew in this locality.

URETHRAL CALCULUS.—The PRESIDENT presented a specimen of urethral calculus, together with a fragment of a flexible catheter taken from a man sixty-nine years of age, who had suffered for thirty years with vesical symptoms, which during the past ten or fifteen years had been supposed to be due to the presence of a calculus somewhere in the urinary passages. Shortly before the patient came under Dr. Markoe's observation he presented himself to a physician residing outside of the city, complaining of symptoms of stone in the bladder, such as irritation, passage of blood, and stoppage of the stream, and the doctor had detected a stone in the course of the urethra. He then passed his instrument into the bladder, and, as he thought, detected a stone there. The case was interesting because it illustrated the uncertainty of the vesical exploration, as would be subsequently seen, when a stone existed in the urethra. The physician stated that he could feel a stone distinctly on either side as he turned the point of the instrument within the bladder. Further manipulations were resorted to for the purpose of removing the stone in the urethra, which was situated just at the peno-scrotal junction. The doctor tried in various ways to get rid of it, but did not succeed. He then hit upon the expedient of taking an elastic catheter, cutting a piece out of one side, and then passing it beyond the stone, hoping that the opening in the side would allow the edge of the stone to engage in it so that he could pull it out. The idea was correct mechanically, and it caught the stone, but, in trying to extract it, the extremity of the catheter was pulled off and left posterior to the calculus. In that condition the patient presented himself at the New York Hospital. Dr. Markoe found the stone in the urethra, but was not able to form a definite opinion with regard to the existence of a stone in the bladder, nor could he ascertain the position of the fragment of catheter. He therefore proceeded as if it might be possible that a stone existed in the bladder, also thinking that it was quite probable that the end of the catheter had entered the bladder. He made an incision as for the median section in lithotomy, and introduced the finger into the

bladder for the purpose of exploration. At this point it occurred to him to avail himself of the opportunity to test the suggestion made by Sir Henry Thompson that the inner surface of the bladder could be explored with the greatest facility by the finger for the detection of calculi, tumors, etc., and he therefore instructed himself with reference to this point, and found that he was able, with the greatest ease, to ascertain exactly any irregularity or any roughness upon the inner surface of that viscus. He found nothing in the bladder, neither stone nor piece of catheter. The inference, therefore, was that the catheter was anterior to the opening in the urethra, which was made in the membranous portion. He therefore extended the incision forward slightly, passed the forceps forward, and first seized the little piece of catheter, and then, passing the instrument a little farther on, came upon the stone, seized it, and removed it. No bad symptoms followed the operation, and the patient was discharged from the hospital at the end of two weeks.

WOUND OF THE INTERNAL JUGULAR VEIN; LIGATION, EXCISION, RECOVERY.—The PRESIDENT also presented a glandular tumor, which merely served as a text for the recital of the history of the case in which an operation was performed for its removal. The case was one of lymphoma of moderate size occurring at about the middle of the left side of the neck in the chain of lymphatic glands behind the sterno-mastoid muscle. He made his incision so as to reach the tumor behind the sterno-mastoid, and, partly cutting and partly enucleating, without much difficulty reached the deeper portion of the tumor; but when this point was reached it was found that the growth projected forward and beneath the sterno-mastoid muscle, and he was obliged to draw the entire mass backward and outward in order to effect its removal. In so doing, it became very difficult to be certain as to exactly what he saw and what was divided in separating the attachments of the base of the growth. When the tumor was nearly separated he was suddenly shocked by the occurrence of a hæmorrhage which was something terrific. It was evidently venous blood, and was pouring out from the bottom of the wound in a stream as large as his little finger. Instantly he plugged the wound with sponges, and then the difficulty was to get at the bleeding point, which evidently was either the jugular vein or some other vein of large size. For one moment he heard a hissing sound, but he was not certain whether it was actually due to the entrance of air into the vein or not. After a little time, constant pressure upon the bleeding point being continued, he carefully and slowly withdrew the sponge, constant pressure also being maintained both above and below, and was able, after several trials, during which much blood was lost, to first catch with the forceps the anterior source of the hæmorrhage and pass a ligature about it. Bleeding from this point was arrested permanently and perfectly. Then the posterior and deepest portion of the wound was dealt with in the same way, and he finally caught a large portion of tissue, including the bleeding point, and threw a ligature about it, when the hæmorrhage ceased. When this had been done, he found that the point from which the hæmorrhage came was just above the bifurcation of the common carotid artery, and the bleeding was evidently from where the lingual and superior thyroid veins unite and empty into the jugular vein, and he had tied these vessels; the other ligature was found to be on the side of the internal jugular vein. It was tied firmly, but he felt unwilling, and so he had always felt, to leave a lateral ligature on the jugular vein. He therefore dissected the parts carefully, exposed the vessel perfectly and clearly, put a ligature around it above and below, and cut off a piece between, partly to release the tension and partly because he wished to see the lumen of the vessel in order to be sure of what had been done. The points of the severed vein were now at least two inches distant from each other. The wound was left

open to heal by granulation. The progress of the case was most favorable, and the patient was now perfectly well, no unfavorable symptom having developed, nor local hæmorrhage having occurred. Dr. S. W. Gross had collected the largest number of cases of ligation of veins, and had recorded fatal results in twenty-two out of one hundred cases, the fatal results being largely due to phlebitis and septicæmia. Of these twenty-two cases, in five the patients died of secondary hæmorrhage, and it was a singular fact that in every one of these five cases the ligature had been applied to the side of the vessel. No death had occurred from secondary hæmorrhage in any case included in his tables from ligation of the vein in its continuity or at its cut extremity. Dr. Markoe believed that the proper plan to pursue was to throw a ligature completely around the vessel, and to leave the wound open, to heal by granulation.

FRACTURE OF THE BRIDGE OF THE NOSE.—Dr. ALFRED C. POST was consulted two weeks ago by a young lady from Michigan who had a deformity of the nose caused by fracture of the bridge. The nose was extremely flattened. He made an incision on each side, opposite the sutures between the nasal bones and the superior maxilla, with the chisel separated the bridge, and then, introducing a firm director, brought them up into place as nearly as possible. The wound was progressing favorably, and there was a marked improvement in the deformity, although it had not been entirely corrected.

Dr. WEIR remarked that he had found it desirable in a number of cases to fracture the central portion first from within, and then to separate the nasal bones from the maxilla by the chisel, when the fragments could be readily put in proper position and easily retained there.

A STATED meeting was held April 24, 1883, T. M. MARKOE, M. D., President, in the chair.

LYMPHANGIOMA OF THE SKIN.—Dr. F. LANGE presented a patient, a girl thirteen years of age, whom he first saw about three months ago. When three years old the mother first noticed in the axillary region a spot, about the size of a silver quarter of a dollar, which had a reddish color. Since that time the spot had slowly but gradually increased in size, and during the last year it had grown quite rapidly. When Dr. Lange first saw the patient there was quite an extensive growth in the axilla, consisting of an elevation of tissue something of the shape of a horse-shoe, with some irregular attachments, and on the whole presenting an appearance not unlike condylomata. The excrescence-like growth occupied a space about five to six inches in length, varying from half an inch to an inch in width, and from a half to three quarters of an inch in height. Besides this more massy growth, there were quite a number of small, whitish vesicles spread over the skin in the neighborhood, apparently containing fluid, and, when the entire growth was examined very carefully, it was evident that the more prominent parts were made up of an agglomeration of these small vesicles, forming an apparently papillary growth, and between these numerous large blood-vessels could be seen. Dr. Lange excised the upper part of this tumor, leaving behind, however, a number of these disseminated, small, whitish vesicles, because he thought that the wound would be too large if all the skin on which these vesicles were situated was removed. Besides, he hoped to obliterate these isolated points by some other method of treatment. The operation was performed eleven weeks ago. A wound almost of the size of the hand was left, but it had healed comparatively smooth, suppuration occurring only in a few places. About four weeks ago he noticed that in the scar these little whitish vesicles had reappeared, and they could be distinctly seen on close inspection, and, when punctured with a needle, a clear fluid could be pressed out. The actual cautery had been applied once

upon the disseminated vesicles, but in the scars vesicles had reappeared. At present he advised the local application of the stronger tincture of iodine. The growth was located exclusively in the cutis. In the deeper parts of the skin there was at one point a thick mass which looked not unlike elephantiasis. The blood-vessels were so much developed that it was necessary to apply quite a number of ligatures at the time of the operation.

He had noticed that Kaposi, in his recent work, mentioned only one case that he had seen. Dr. Lange thought that the vesicles were due to distension of the lymphatic spaces, and believed that the vesicles on the cicatrix were due to the same change. He had operated in one other case, that of a small child, who had a similar growth upon the side of the thorax. In that case the subcutaneous tissue was somewhat involved. He had also seen another case which was operated upon by Professor Esmarch. In both of these cases, however, the skin was not involved to such an extent, and complete extirpation in healthy parts could be performed with lasting success.

ABSORPTION OF ZINC FROM THE LOCAL USE OF A SOLUTION OF CHLORIDE OF ZINC IN THE TREATMENT OF A BURN; NEPHRITIS.—Dr. L. A. STIMSON presented mounted microscopic specimens of the kidney, which, together with the history, were furnished by Dr. W. L. Wardwell, house surgeon at Bellevue Hospital.

Robert W., aged four years, a quadron, of feeble constitution, was admitted to Ward 1, Bellevue Hospital, January 2, 1883, suffering from a scald of the back and side, which included the left side of the back to within one inch of the median line, extending from the third dorsal vertebra above to the second lumbar below, the left side of the chest and the left anterior surface of the abdomen, the left axilla, and the lateral abdominal region below it. It extended down upon the anterior surface of the left thigh for three inches, and over the left acromion and lower part of the posterior surface of the neck. The scald differed in severity in the several localities. Upon the thigh and over the shoulder, and for a space of two inches at its edges, only the epidermis was injured; in the axilla, just below it, and over the back at the same level, the entire thickness of the integument was compromised.

The patient suffered at the time of the injury from shock, from which he reacted. The burns were dressed with carbolized vaseline spread upon strips of sheet lint, this being surrounded with cotton, and the whole secured by a bandage. The injured tissues sloughed extensively. The dressings were changed as often as necessary, and the patient's general condition was carefully attended to. His temperature during this period fluctuated from 99° F. in the morning to 102° in the evening. On January 28, 1883, it was normal for the first time. It remained so for a few days; after that he rarely passed a day without an evening exacerbation of from one to two degrees. At the end of five weeks the sloughs had entirely separated, and the ulcer resulting was covered with small healthy granulations. During the following month the edges of the ulcer healed very rapidly, and upon March 2d, two months after the injury, the original ulcer had diminished its dimensions one half. During the next week the reparative forces appeared to be at a standstill, and during the two weeks following the newly formed cicatricial tissue broke down extensively, the ulcer regaining nearly its original dimensions. The patient complained of pain, and seemed to be relieved by frequent dressings. At these dressings the ulcer was sprinkled with a thin layer of iodoform, and then covered, as before, with sheet lint spread with carbolized vaseline. About this time the urine was examined, as it had been when the patient first entered the hospital. No albumin or casts were found. Under this form of treatment no improvement took place. The appearance of the ulcer betokened a sluggish action; its edges were sloping and adherent; the lower portion was dotted with small

islands of cicatrization, which had persisted while the surrounding tissue had broken down; the granulations were bluish in color, flabby, and did not bleed readily.

Upon April 4, 1883, the patient was etherized. The ulcer was washed with four ounces of a five-per-cent. solution of chloride of zinc. There was no cavity or pocket in which any of the fluid could be retained. A dressing was applied, consisting of three pads of dry carbolized gauze, each composed of six thicknesses of the gauze. These covered the ulcer only. Over these were placed eight layers of gauze, and one layer of Macintosh completely surrounding the body. The entire dressing was kept in place by numerous turns of a carbolized bandage. The patient vomited several times before the administration of the anæsthetic; this was attributed to some error in diet.

While reacting from the anæsthetic the patient vomited several times during the afternoon and evening. During April 5th he was either drowsy or sleeping most of the day. He appeared to be completely free from pain, and, upon being questioned, replied that he felt well. His pulse was as good as before the dressing, and his changed behavior, which had been exceedingly irritable, and his freedom from pain, were subjects of congratulation, and were attributed to the good effects of the dressing. The patient seemed to be easily nauseated, and vomited several times. He was placed upon a milk diet, and bismuth was administered to check the vomiting. His temperature was, 10 A. M., 97.5° F.; 10 P. M., 99° F.

During April 6th the patient's general condition was much the same. His nausea persisted, but to a lesser extent. His temperature was, at 9 A. M., 97.5° F.; 9 P. M., 99° F. In the evening the nurse reported that he had passed no urine for twelve hours. A poultice was placed over the abdomen, and pieces of ice were put into the rectum. Two hours later he passed four ounces of urine. This specimen was analyzed the following day. Color, greenish black; whitish sediment. Specific gravity, 1.020. Decidedly acid. Albumin one third of bulk. Mr. Rice, the chemist at Bellevue Hospital, examined it chemically, and found that it contained zinc in a considerable amount. It was not tested for carbolic acid. During the twenty-four hours of April 7th the patient passed six and a half ounces of urine of the same characteristics as that found upon the 6th. A microscopical examination showed the presence of a few epithelial casts. The patient was placed upon the infusion of digitalis, and the region of the kidneys and bladder was poulticed. The pupils were not contracted.

Temperature, 9 A. M., 98.25° F.; 6 P. M., 97.5° F. The patient did not vomit but once, retained milk, six ounces, and a small amount of rice and milk.

April 8th.—The patient passed 5.5 ounces of urine, lighter in color than that passed before, but still decidedly greenish, and containing a large number of casts of all varieties. He vomited several times during the day. Otherwise his general condition was much the same. Temperature, 9 A. M., 98°; 1 P. M., 101°; 5 P. M., 100°.

April 9th.—The patient complained that his back hurt him, and, as the discharge had come through the dressings at several points, a new dressing was applied. As a result of the stimulation by the chloride of zinc, the character of the granulations had changed; they were decidedly more healthy and firm in appearance. The edges of the ulcer were making an effort at repair. At this dressing the surface of the ulcer was not disturbed by washing, and the dry pads of carbolized gauze were applied directly to its surface, as before. After the dressing the patient was much more comfortable. Temperature, 9 A. M., 98°; 5 P. M., 98°. He vomited several times during the twenty-four hours. He passed during the same period seven ounces of urine.

April 10th.—At 6.30 A. M. the house surgeon was called by the nurse, who reported that the patient's temperature was 95.5°. He was visited immediately; was found quiet; answered rationally; pulse rather more feeble than usual. He was surrounded with hot bottles, and given whisky, one ounce, with orders to the nurse to repeat the whisky in fifteen minutes, and report in half an hour if the temperature did not rise. Half an hour later the nurse reported that the patient was still cold, and screaming with pain. The house surgeon immediately went to the ward, but before reaching it the patient had died. The seven ounces of urine which the patient had passed April 9th was examined chemically for the presence of zinc; none was found. The color, which was darker than on the two days preceding, was found to be due to the presence of carboic acid. Albumin was present in large amounts, and casts of all varieties were more abundant than in any of the specimens previously examined. At no time during the course of the disease did the patient show any signs of œdema, nor was he attacked by convulsions. A complete autopsy was not permitted. One kidney was obtained; weight, 4.5 ounces. Capsule non-adherent, light in color, cortex swollen, stripings not distinct. Microscopically, the glomeruli are smaller than normal, either from pressure or contraction. Between them and the capsule there are decided spaces, which in some instances contain large cells, nucleated, suggestive of a glomerulo-nephritis. The cells lining the capsule are swollen and thickened, and, to a certain extent, desquamated. The capsules are thickened, probably the result of an œdema of the stroma. The convoluted tubes are in many situations enormously dilated, showing probable fatty changes in the epithelium, and desquamation of the latter. A number of the tubes contain hyaline, epithelial, and blood casts, and some few pus-cells, but these are by no means frequent. Some of the tubes contain a detritus which is suggestive of a pre-existing hæmoglobinuria, but this was not discovered during life. There are several foci of small cell-infiltration, especially well marked in the vicinity of the blood-vessels.

Dr. STIMSON also presented a specimen which illustrated BONE LESIONS OCCURRING AT A DISTANCE FROM A JOINT, BUT APPARENTLY PRODUCED BY ARTICULAR INFLAMMATION.

The specimen consisted of the lower portion of the femur and the upper portion of the tibia, removed by amputation from a man who entered Bellevue Hospital on the 9th of April, 1883. He was thirty-two years of age, and stated that in October, 1881, he received a charge of buckshot just above the left knee; that five or six of the shot perforated the thigh from without inward; that two passed through the bone, four passed through the soft parts, and all but one made a complete passage through the limb. The sixth shot was cut out. He had been treated in various hospitals, and had undergone several operations under ether, at some of which, so far as could be ascertained, bone was removed from the lower end of the femur, and the evidence remained of an incision having been made on the inner and outer side of the thigh. Three weeks before admission to Bellevue Hospital, while in a city hospital, a phlegmon developed over the upper and inner portion of the tibia on the same side. It was cut into by a straight incision, the periosteum was found thickened, and exit was given to a small quantity of pus which was between the periosteum and the bone. At that time the man desired amputation, but it was not performed, and he left that hospital and came to Bellevue and asked that his limb should be taken off. There were two openings—one on the outer and the other on the inner side of the thigh at its lower part, and a third opening made by the operation three weeks ago over the upper part of the tibia. The probe could be passed completely through the thigh at its lower portion, but no bare

bone was detected. Bare bone, however, could be detected through the opening made over the tibia. Amputation was decided upon, and was performed by Dr. Wardwell, at a point about four inches above the joint. After the limb had been removed, the bones were sawed longitudinally, and presented the following appearances: The femur above the condyles was enlarged by subperiosteal thickening. About an inch and a half above the joint there was an opening in the bone which passed completely through from one side to the other, and its surfaces were covered with granulations to such an extent that bare bone could not be detected at any point. The knee joint was completely obliterated by fibrous adhesions between the opposing articular surfaces, so that there was only a very slight amount of motion in it. The tibia, at about an inch and a half below the articular surface, showed a central abscess, situated immediately beneath the incision which was made in the periosteum three weeks previously, and before admission to Bellevue Hospital. It was separated from the external surface by an intact layer of compact bone. Two days before the operation the patient complained of soreness in this region, and the limb presented the signs of phlegmonous inflammation at a point corresponding to the tubercle of the tibia where the extensor muscles are attached; and here a small opening in the bone was found, leading into the abscess. In the head of the tibia there were two hæmorrhagic foci, neither of which had suppurated. There was a third hæmorrhagic focus below the abscess first mentioned. The patient thus far was doing well.

NEW YORK MEDICAL AND SURGICAL SOCIETY.

A STATED meeting was held December 9, 1882, Dr. T. GAILLARD THOMAS, President, in the chair.

ORCHITIS AND EPIDIDYMITIS RELIEVED BY THE DIVISION OF URETHRAL STRICTURES.—Dr. F. N. OTIS related several cases of this sort. [They will be given in a future number of the journal.]

Dr. R. F. WEIR remarked that neuralgia of the testicle most frequently occurred from prostatic or bladder trouble, or from congestion in the prostatic region arising from ungratified sexual desire, or from the passage of an instrument through the deep portion of the urethra. Milder measures, therefore, should first be tried than division of the meatus.

Dr. OTIS thought that no method of treatment could be adopted which was less dangerous than the division of strictures in the anterior portion of the urethra, and that this should first be tried rather than the immediate passage of a sound through the deep portion of the urethra to determine whether the trouble might lie in that region, for it was well known that the passage of instruments through this portion of the urethral canal often gave rise to serious trouble.

Dr. A. C. POST remarked that he had never seen any ill result from the division of a contraction in the anterior portion of the urethra, but he had known it often to be productive of good results. If an hypospadias were made, it was the fault of the surgeon.

EXTREME PELVIC PAIN, PROBABLY DUE TO RUPTURE OF A TUMOR OF THE FALLOPIAN TUBE.—Dr. T. F. COCK had been sent for recently to see a woman in great agony from darting pains radiating over the abdomen from a point in the right iliac region. The trouble commenced suddenly while she was stooping, lacing her shoes. Relief was not obtained until after forty-eight hours, when ten grains of morphine had been administered hypodermically and by the mouth. The temperature and the pulse rose very little, if any, above normal. The stomach rebelled against food. The patient had become so weakened at the end of the forty-eight hours that it was feared she could not re-

cover. By the use of stimulants, however, she had begun to improve. Dr. Cock could not account for the cause of the trouble, but stated that one of the patient's sons, twelve years of age, had fainting attacks at times, since they had moved into their present dwelling; another son had been incapacitated for business by headache and general weakness; families who had lived there previously had removed because of sickness. Possibly all these troubles had originated from the emanations from large accumulations of the excrement of rats found about the water-pipes.

The PRESIDENT had seen several similar cases in which he had made the diagnosis of rupture of a cyst of the Fallopian tube. A girl, about nineteen years of age, presented herself at the Woman's Hospital for treatment of a greatly enlarged clitoris, which was probably of syphilitic origin. About ten days after its removal, while she was rising from bed, agonizing pain suddenly developed in the iliac region on one side. Peritonitis set in within twelve hours, and the patient died. At the post-mortem examination it was found that there had been a pyo-salpinx, of about the size of a duck's egg, which had ruptured and emptied its contents into the peritoneal cavity. In the other cases which he had observed the patients recovered so that the diagnosis could not be verified by a post-mortem examination; the symptoms, however, were so definite that he had no doubt that rupture of a fluid tumor of the tube, filled with pus or blood, had taken place. The pain in these cases developed suddenly, was agonizing, and large quantities of morphine were required to allay it. The temperature and the pulse were little elevated unless peritonitis was present.

Dr. Post asked if it was not better to combine the inhalation of chloroform with the administration of morphine than to give the latter drug in such large quantities. He had often found such a combination of the two drugs to be efficacious when large doses of morphine alone failed to give relief.

CARCINOMA OF THE COMMON BILE-DUCT.—Dr. F. DELAFIELD had recently reported a case to the society in which the question of aspiration of a dilated gall-bladder arose. The patient died a few days later, and the cause of the changes was found to be carcinoma of the common bile-duct. This constituted the fifth case of carcinoma of the common bile-duct which had come under his observation, and, as the disease occurred rarely, the facts common to the five cases were related as follows:

Five cases occurred in males. The patients were of the ages of thirty-five, fifty-one, forty-seven, fifty, and forty-eight years respectively; in three cases the duration of the disease from the commencement of the symptoms was three months, in one case two months, in the other only one month. Two of the cases were preceded by chronic dysentery. Jaundice, which developed very rapidly, and progressed throughout the course of the disease, was the first symptom in all the cases. In two of the cases, with the development of the jaundice, attacks of severe pain occurred in the epigastric region. In all there was loss of appetite, nausea, and vomiting. After the disease had become established, all of the patients emaciated rapidly. In one case the attacks of pain were repeated throughout the course of the disease. In three there were bleeding from the gums, vomiting of blood, passage of blood from the bowel, and extravasations of blood into the skin. In only one case was there febrile movement, and in that instance it was probably due to suppurative inflammation of the bile-duct. It was found at the post-mortem examination that the tumor of the bile-duct was not sufficiently large in any of the cases to enable one to make a diagnosis. In two of the cases there was simply an infiltration of the walls of the duct with cancerous material. In all, the new growth seemed to have originated in the mucous glands in the walls of the bile-duct, and had the characters of an epi-

thelial cancer with cells of the cylindrical variety. In two cases the new growth had extended to that portion of the pancreas immediately beneath the bile-duct, infiltrating its tissue to a moderate extent. In one case there were secondary nodules in the lungs. In none of the others had metastatic growths occurred in other parts of the body. The liver was considerably increased in size in four of the cases; in one it was of about normal size. In only one case was there perceptible dilatation of the gall-bladder. In one case there was catarrhal inflammation of the bile-duct, with suppurative inflammation of the adjacent liver-tissue, which had produced small abscesses.

TENDENCY TO THE REPETITION OF MONSTERS.—Dr. H. F. WALKER had recently attended a woman in confinement who stated that, according to her reckoning, delivery should have taken place ten days sooner. Since that time the child had shown fewer signs of life than previously, and just before delivery movements had ceased altogether. It proved to be a monster, and died immediately after birth. The eyelids were partially closed and were adherent to each other, the nose and mouth were deformed, most of the fingers were webbed, a phalanx of one thumb was wanting, the sex could not be determined, and the anus was imperforate. The point of interest in the case was the fact that the woman had been pregnant twice before, both times giving birth to a monster. Dr. Walker attended her in her second confinement, which took place at full term. The foetus resembled a turtle, and had only one eye, and the abdominal walls were wanting. As in the last instance, it simply gasped and died. The woman was out of the city at her first labor, which came on at the seventh month. He was informed that the foetus in that instance was also a monster. Dr. Walker was compelled, at her last confinement, to remove the placenta by hand. It was examined by a microscopist, and was found to contain a great deal of calcareous material, and was very brittle. The woman had suffered with pain in the region of the uterus before delivery. She was healthy, but spare, and somewhat nervous.

SUBCUTANEOUS EMPHYSEMA OF THE NECK AND FACE ATTENDING LABOR.—Dr. J. W. McLANE related the following case: The patient was a primipara, twenty-one years of age. The first stage of her labor lasted two hours, and was characterized by unusually severe pains. So excessive was the uterine action, and the pains were of such long duration, that chloroform was administered, though not to an extent sufficient to render her unconscious. Soon after the commencement of the second stage she began to strain violently, and her efforts were attended with extreme suffering. Although she was urged to desist from all expulsive efforts, and to inhale chloroform freely, it was difficult to produce complete anæsthesia. During a violent bearing-down effort, of long duration, her face became congested and of a purple hue, and a swelling made its appearance on the right side of the neck near the trachea, which, on examination, was found to be a localized subcutaneous emphysema. During the next three or four pains, which followed one another in rapid succession, the swelling increased and extended to the right cheek. Labor was terminated very soon after. As soon as the patient returned to consciousness she complained of a constriction in her throat, and experienced some difficulty in swallowing. Her appearance was such as to attract the notice of every one who saw her. Her neck, previously slender, was now thick and oedematous; her face so puffed that on the right side the eyelids were closed, as if by dropsical effusion, and the features effaced. When pressed upon, the puffy swelling gave the characteristic crackling. There was no emphysema below the clavicle. In the course of a few days the swelling gradually subsided as the air became absorbed, and by the end of a week it had entirely disappeared. Dr. McLane remarked that rupture of the

air-passages during labor rarely occurred, giving rise to emphysema, either pulmonary or subcutaneous. He believed that in this case the rupture occurred in the trachea. He had seen but one other case, and in that there was rupture of the pulmonary vesicles.

Dr. OTIS had seen, in the neck and cheek, in a young, healthy woman, a localized emphysema, which had taken place while she was engaged in some domestic duties of a light kind. The swelling disappeared. The only possible cause of such an accident in this case seemed to be straining efforts at stool, as suggested by Dr. Weir.

A STATED meeting was held December 23, 1882, Dr. T. GAILLARD THOMAS, President, in the chair.

THE SELF-LIMITATION OF CERTAIN DISEASES WHICH ORDINARILY PROVE FATAL.—Dr. B. W. MCCREADY said that this subject, which had often arisen in his mind, had recently been forcibly impressed by certain cases of phthisis which had come under his observation. Certain members of his own family had in early life suffered under all the symptoms of pulmonary consumption, such as long-continued cough, repeated attacks of hæmoptysis, emaciation, etc., and, on going to a southern climate, had apparently regained perfect health, which continued for perhaps twenty years. At the end of that time there had been a return of the former symptoms—of cough, hæmoptysis, emaciation, fever, sinking in of a part of the chest, and of the physical signs of phthisis. After a time they again apparently recovered, gained strength, and were living at the age of seventy-three or seventy-four years. This experience had occurred to him repeatedly—patients affected with pulmonary phthisis, apparently in the last stage, recovering almost perfect health, and living to an advanced age, or until taken away by some other disease. Another instance was that of a gentleman whom he had now attended for forty odd years. Phthisis had been in the family; a brother had died of the disease, as had also all the children of a sister, and finally the sister herself. Some forty years ago this gentleman had repeated hæmorrhages from the lungs, sinking in under the clavicle, great emaciation, and was apparently about to die. He afterward recovered, grew strong, and seemed in perfect health for a good while. About ten years ago, while residing in France, he had another attack of the same symptoms. The French physicians, recognizing the gravity of the case, thought a voyage might be of benefit. On his arrival in New York, Dr. Metcalfe saw him with Dr. McCready. They both believed that he would not be able to live through the winter. He went to Florida, and from there to California, and was now in New York, to all appearances in perfect health, weighing one hundred and ninety pounds.

The same tendency to self-limitation of disease occurred in affections of the brain. He had not infrequently seen cases in which patients had had paralytic seizures, weakening of the intellect and of the memory—the characteristics of the childhood of old age—yet, after a time, they gradually regained their mental power.

Dr. A. C. POST remarked that a relative of the late Dr. Valentine Mott, who had reached an advanced age, once told him that in early life Dr. Mott had condemned him to certain death from consumption. When Dr. Post saw him he was not a vigorous man, but he had reached an advanced age, a great many years after his doom had been pronounced by Dr. Mott. Dr. Post had an elder brother, who, when growing up to manhood, had all the symptoms which at that time were regarded as clearly indicative of pulmonary consumption. His mother and several of the members of her family had had consumption. One of her brothers and his entire family died of the disease. He had married a woman who was also phthisical. The elder brother

referred to had a cough, with copious expectoration, progressive emaciation, and all of the symptoms which at that time, before physical diagnosis was well understood, were regarded as indicative of phthisis. He went to Europe, and returned after a year, partially restored to health. He afterward revisited Europe, traveling in Greece and other parts in the south, and, after two or three years, recovered entirely. No signs of pulmonary disease remained. He died, at the age of twenty-nine years, of scirrhus of the rectum. A post-mortem examination was made, and no trace of pulmonary disease was found at that time, which was about ten years after the pulmonary symptoms had been present.

The PRESIDENT remarked that this was a subject which he had thought of very much in connection with cancer, including under that term sarcoma, rodent ulcer, etc. It was remarkable how differently cancer of the uterus behaved in different patients. Twenty-five years ago, when patients presented themselves with cancer which had almost destroyed the neck of the uterus, it was his custom to make a very fatal and limited prognosis. At present, however, he was very cautious about doing so, for, although the result was always the same in the end, it was extraordinary how some of the cases would continue. He had known such cases to go on for six or seven years, the patients finally succumbing to the disease which had existed during that long period. He remembered one case distinctly—that of a lady who came on from Galveston, Texas. When he saw her she was almost completely exsanguinated, having been brought on a bed, bleeding almost all the way from Galveston. Upon making an examination, the vagina was found to be filled with some material, which proved to be tannin clotted with blood. It had been used by her physician to stop hæmorrhage, and her relatives had afterward applied it in this liberal manner. Dr. Thomas made a diagnosis of malignant disease, applied nitric acid, and the patient returned home. Her husband had doubted his diagnosis. Returning five years afterward with his wife, he asked Dr. Thomas if he remembered them. Dr. Thomas replied that he remembered the gentleman, but not the lady. The lady was his wife, the gentleman said, and asked Dr. Thomas triumphantly what he now thought of the patient on whom he had pronounced a diagnosis of cancer five years ago. Upon examination, the entire uterus was found to have been destroyed by the disease, which resembled corroding ulcer, there remaining a mere shell of parenchyma with peritonæum. Her physician had been passing a cylindrical speculum right up into the uterus when making examinations, and had stated that the disease had all disappeared. The woman lived two years longer, and then died of peritonitis. It had so often occurred that patients having malignant disease of the uterus continued to live some years afterward, and had therefore doubted the correctness of the physician's diagnosis, that he had referred to the fact in the last edition of his work on the diseases of women.

Dr. MCCREADY spoke of the case of a woman about fifty years of age who had typical scirrhus of the breast. Dr. Weir removed this tumor, and remarked at that time that the patient would probably die within six months. That was five or six years ago, and she was still living, in perfect health, engaged in manual labor.

The PRESIDENT further remarked that a lady who had epithelioma of the cervix uteri had been visiting him about once a month for three years. There was some hæmorrhage, which seemed to be checked by the application of chemically pure nitric acid. As the disease advanced there was tendency to closure of the vagina. As Dr. Post had suggested, it belonged not to the class of true cancer, but to the milder form of epithelioma.

POLYURIA AS A SYMPTOM OF GRANULAR DISEASE OF THE KID-

NEYS.—Dr. A. B. BALL related the following case, in which it had been difficult for a time to decide whether the polyuria was due to renal disease or to spinal irritation: The patient, a woman sixty-eight years of age, whose general health had been good for several years, was injured in the back last September by falling from a stool and striking on the arm of a chair. Within a few weeks marked spinal irritation developed, especially over the dorsal and lumbar regions, with exquisite cutaneous hyperæsthesia, intercostal neuralgia, and neuralgiform pains in various parts of the trunk. There were no symptoms of myelitis or meningitis of the cord. The case was treated as one of lumbago by a prominent homœopathic practitioner. During the next month her health continued to fail, and shortly before she was seen by Dr. Ball she had had an attack of gastric disturbance, with vomiting lasting four or five days, and apparently the result of overfeeding. This symptom had ceased when Dr. Ball assumed charge of the case. Dr. Austin Flint saw the patient in consultation shortly afterward. She was then passing from eighty to ninety ounces daily of very pale urine of a specific gravity of 1.008 to 1.010. No albumin or casts. No marked arterial tension. As the patient was very stout, the existence of hypertrophy of the heart could not be determined. No valvular murmur. In the absence of positive indications of renal disease, it became a question whether the polyuria was to be regarded as a symptom of degenerative changes in the kidneys, or was to be ascribed to the influence of spinal irritation. The result of treatment seemed for a time to confirm the latter view. Under the use of the ascending galvanic current to the spine daily, the pains diminished in intensity, and the digestive functions improved, while at the same time the urine decreased in amount to about forty ounces daily, its color deepened, and the specific gravity rose to 1.012 and 1.014. A few days afterward the occurrence of a slight convulsion cleared up the diagnosis. The patient, while at stool, and without any previous warning, became momentarily unconscious, and there were slight convulsive movements of the arms. The urine was found to contain a trace of albumin, and a few hyaline and granular casts. Two more similar attacks occurred on the two following days, neither of them lasting more than two or three minutes. After the third attack the patient became soporose, the stomach too irritable to retain food or medicine, and the urine fell to twenty ounces in twenty-four hours. Fomentations with infusion of digitalis were applied to the abdomen, with the effect of temporarily increasing the amount of urine; but the stupor steadily deepened into coma, and death occurred in about forty-eight hours after the third attack.

The PRESIDENT asked whether any of the members had known pilocarpine, administered either by the mouth or hypodermically, to re-establish the secretion of urine in cases of suppression. He thought of trying it in a case in which complete suppression had occurred within forty-eight hours after the removal of a large ovarian tumor, and in which frequent hypodermic injections of digitalin had proved of no benefit whatever. †

ELEPHANTIASIS GRÆCORUM.—Dr. G. G. WHEELOCK presented a patient suffering with elephantiasis Græcorum. A colored man, by occupation a cook aboard ship, had been in the Colored Home in this city since 1878. The symptoms at that time were such that syphilis was suspected, although the patient denied any venereal infection of which he was aware. He then complained of deep-seated pains pretty generally distributed over the body, and enlarged glands were found situated in the neck, axillary and inguinal regions, beside the induration of the epitrochlears on either side. He also complained of troublesome headache. He was accordingly put upon mixed treatment for some time, without results. He had also suffered from eruptions upon the skin, and these, while observed in hospital, recurred at intervals, being

sometimes vesicular, sometimes pustular, sometimes in the form of large bullæ like those of pemphigus, which terminated frequently in superficial ulcers, and sometimes tubercular. These eruptions recurred from time to time, and then gradually faded out; they often occurred in the line of distribution of certain nerves, particularly those of the upper extremities, and, following the decline of the eruption, the affected region became anæsthetic, and so continued. About nine months before entering the hospital he noticed that the skin was becoming coarse and thickened over the eyebrows, nose, cheeks, and ears, with the characteristic appearance of elephantiasis. About two years since, after the unsuccessful employment of various remedies, he was put upon the use of chaulmoogra oil, and had repeated its use at intervals ever since, with great relief to his symptoms, particularly the pain and the formation of tubercular developments on the skin. He had taken as many as twenty drops two and three times daily. But ordinarily, after three or four weeks, the dose became so nauseous that he was obliged to discontinue it. Still his improvement had been very great. Aside from the deformities of the face, which had diminished, his chief source of complaint was the anæsthetic condition of his fingers, which made him bungling and clumsy in handling necessary objects, and in dressing himself.

AMERICAN LARYNGOLOGICAL ASSOCIATION.

THE fifth annual congress was held at the hall of the Academy of Medicine, New York, on Monday, Tuesday, and Wednesday, May 21, 22, and 23, 1883, Dr. GEORGE M. LEFFERTS, of New York, President, in the chair.

After the roll of membership had been called by the secretary, Dr. D. Bryson Delavan, of New York, the address of welcome was delivered by the PRESIDENT, who referred to the full attendance at the present meeting, to the excellent work being done by the society, and to the best method of extending its membership, which was limited to fifty, and would be completed during the present session.

NEW FACTS IN LARYNGOLOGY.—The PRESIDENT read a paper with this title, in which he related the case of a young, strong, healthy man who, while sitting at the table, suddenly became unconscious, fell, and almost immediately arose and resumed the conversation. The attack had been repeated a number of times during the past eight years, and partial attacks occurred frequently. They were always preceded by a slight cough, the face became suffused, but no convulsive movements were apparent. Aside from slight hyperæmia, the laryngoscope revealed nothing abnormal. He had seen one other similar case. Charcot had given to the condition the term laryngeal vertigo; Gray, that of laryngeal epilepsy. Was there a relation, Dr. Lefferts asked, between the tickling in the throat with cough, and the fall and state of unconsciousness? He did not consider Charcot's views proved; were those of Gray correct?

Dr. LOUIS ELSBERG, of New York, regarded the attacks as due simply to a form of adductor spasm, while Dr. MAJOR, of Montreal, believed them to be a form of epilepsy, which view the President said he was disposed to accept.

A COMMON FORM OF VOCAL DISABILITY RESULTING FROM PATHOLOGICAL PROCESSES. THE PHENOMENA USED TO DEMONSTRATE THE FALSITY OF ONE SYSTEM OF VOICE TRAINING.—A paper with this title was read by Dr. S. W. LANGMAID, of Boston. The disability referred to consisted in an inability to sing above a certain note, or in a break in the voice at a certain point in the upward inflection, and occurred most frequently in the best singers and actors, who were called upon to put forth their highest endeavors. In soprano and tenor voices it occurred at nine in the key of C; in contralto and bass voices, at seven in the scale. The cause consisted in fatigue of the vocal mus-

cles, with or without slight injection of the mucous membrane. When the note referred to was reached on the ascending scale, instead of progressive closure of the glottis, especially of the posterior portion, sudden relaxation took place. The treatment lay partly with the laryngologist, but principally with the teacher. Attempting to sing falsetto at a degree of the scale where the normal tone was called for should be avoided.

Dr. CARL SEILER, of Philadelphia, had found that in the majority of cases the break in the voice was due to an enlargement of the pharyngeal tonsil, and a consequent narrowing of the resonance space, the correction of which resulted in a cure. There might also be relaxation of the vocal cords.

Dr. DALY, of Pittsburg, thought that general nerve stimulants, among which he mentioned ergot and nux vomica, should prove of benefit in connection with rest.

(To be concluded.)

Reports on the Progress of Medicine.

QUARTERLY REPORT ON GENERAL MEDICINE.

No. XIV.

BY ALEXANDER DUANE, M. D.

THE TUBERCLE BACILLUS AND PHTHISIS.—In an able lecture on the ætiological, diagnostic, and therapeutic relations existing between tuberculosis and its bacillus ("Brit. Med. Jour.," Feb. 3, 1883), Dr. T. H. Green decides that the conditions necessary for the generation of the disease are found, first, in the presence of bacilli; second, in a hereditary or acquired predisposition which favors the occurrence of congestive and inflammatory changes in the lungs, particularly in the apical region where the circulation is retarded. The co-existence of these two factors seems to be essential to the production of true pulmonary phthisis. Accordingly, the therapeutics of the disease must regard both of these factors, and hence the indications for a rational treatment are, first, to promote the general health, improve the condition of the blood and of the vessels, and exercise the respiratory function, in order to prevent apical stagnation and inflammation; second, to prevent the access of the bacilli, or destroy them by antiseptic appliances when they have already effected an entrance.

THE DIAGNOSTIC VALUE OF THE TUBERCLE BACILLUS.—In the same journal for February 17th Dr. J. Dreschfeld, as the result of a large number of examinations, comes to the conclusion that bacilli are present (*a*) in all cases of fully developed phthisis, and (*b*) in cases which are still in the earliest stages and exhibit no physical signs. Further, (*c*) they are absent in non-phthisical chronic pulmonary affections (bronchiectasis, emphysema, fibroid pneumonia, anthracosis, catarrhal pneumonia, and syphilitic disease of the lungs). Lastly, (*d*) the author holds that the quantity of bacilli bears no relation to the intensity of the morbid process, and hence has no prognostic value. The results of Balmer and Fränkel, D'Espine, Heron, and Lichtheim are in the main concordant with those of the author, although several differ with him in regard to the prognostic importance to be attached to the presence of the bacilli in large numbers.

ANGINA PECTORIS AND THE THEORY OF COUNTER-IRRITATION.—In Dr. W. A. Sturge's article upon the phenomena of angina pectoris ("Brain," v., 4, 1883) he explains the pectoral pain as well as the associated symptoms of dyspnoea, gastric disturbance, brachial soreness, etc., by the conversion of an efferent impulse conveyed along certain nerve-trunks (the cardiac

nerves) into a general commotion of the group of spinal nerve centers with which these trunks are connected, and by the consequent involvement of other trunks springing from the same centers. In this way disturbances arising in a deeply seated organ may make themselves apparent in the neighboring external parts. A similar process, but in the reverse sense, takes place when inflammation of a deeply seated part occurs from chilling or irritation of the superficial regions, and the efficacy of *counter-irritation* in relieving visceral pain is regarded by the author as an instance of the same law of diffusion. In the latter case he believes that we relieve pain by exhausting the sensitiveness of the center, which supplies nervous force both to the viscus and the overlying integument, so that by exerting a powerful impression upon the latter we inhibit the irritative action of the center upon the former.

CHANGES IN THE RENAL GANGLIA IN BRIGHT'S DISEASE.—In the "British Medical Journal" for January 13, 1883, Dr. R. Saundby fully confirms the results obtained by Da Costa and Longstreth in relation to the co-existence of changes in the semilunar ganglia with inflammatory lesions of the kidneys. These changes are: 1. In acute Bright's disease, a simple increase in the round-cell elements of the stroma of the ganglia. 2. In the "large white kidney," a marked increase in the stroma as well as in the cell-elements. 3. In the mixed forms of renal inflammation, in addition to the changes above indicated, the ganglionic cells show signs of pigmentary degeneration, and the vessels may be dilated and hypertrophied. 4. In the atrophic kidney, the stroma of the ganglia is greatly increased in amount, the cell-elements are diminished, the ganglionic cells are scanty, shrunken, and in a stage of pigmentary degeneration, and the vessels are invariably dilated and hypertrophied. The number of cases examined by Saundby and the authors referred to was twenty-four, and in every one changes of the character just described were found in the semilunar ganglia. The constancy of this association of lesions seems to suggest a relation existing between the changes in the ganglia and those in the kidney; and Da Costa and Longstreth suppose that the latter may be the direct result of the former. Saundby, however, combats this idea and holds that the ganglionic lesions are the results of irritative action set up by the renal disease, it being well known that, in a great number of pathological conditions in which there is structural alteration of any of the viscera, irritative changes do occur in the related sympathetic ganglia.

Letters to the Editor.

THE INTERESTS OF HUMANITY AND THE OLD CODE.

NEW YORK, May 19, 1883.

To the Editor of the New York Medical Journal:

SIR: A constant reader of your valuable journal, I have been much interested in the articles which have appeared in its columns bearing upon the "Code Question," *pro* and *con*, and as I am not a member of either State or county society, or of the American Medical Association, and consequently unfettered in the matter of "Ethics and Etiquette," except in so far as every man is bound by that *unwritten code* in his intercourse with his fellow-men, I feel that I can view both sides of the question with a freedom of thought which is apparently impossible to either of the opposing factions.

As I understand the question, the entire controversy hinges on the consultation clause, which under the new code "*permits*"—not *compels*, nor even *advises*—simply permits a regular physician, in the exercise of his own judgment and in the interests of humanity, to consult with any legally qualified practitioner of whatever school or belief. It

does not seem probable to me that a regular would seek such a consultation, nor ought it to be possible that he would refuse it when solicited, if demanded by the interests of humanity—that is, if, in his opinion or in the opinion of the physician requesting his services, there was the shadow of a chance of saving the life of an individual. And I think I am right in presuming that under such circumstances only would such a consultation be requested.

It seems quite as inhuman under those conditions for a "regular" to withhold his advice and skill as it would for an orthodox minister to refuse to pray for a dying Unitarian—and what would be said of a minister who did so refuse? Perhaps a case in point will illustrate the—shall I call it—barbarity of such a refusal. In a neighboring city some few years since a gentleman was thrown from his carriage, and conveyed to his home in an insensible condition. The family physician, a man of education, a gentleman in every sense of the word, but a homœopath, was hastily summoned. After vainly employing all the resources at his command in attempts to restore the patient to consciousness, with a full realization of the gravity of the case and of the necessity for prompt and active measures, he said to the family: "I must have immediate surgical assistance; send for Dr. —; I think he is the only physician in the city who can render any real service." A messenger was immediately dispatched for Dr. —, to whom the urgency of the case was stated. "Who has charge of the case?" "Dr. A." "He is a homœopath; I can not attend the case unless he is discharged." "But Dr. A. is the family physician, and it was at his request that you were sent for, because he thought that your skill might be the means of saving Mr. —'s life." "I am sorry for Mr. —, but I can not go." The patient died. Now, Mr. Editor, if that is the ethics and etiquette, the *humanity* of the old code, the sooner the new code is adopted by every medical society in the country, the sooner will the public receive from the medical profession that which is its just due.

"LIBERTY."

Miscellany.

DR. JOHN C. MINOR ON "SECTARIAN FELLOWSHIP."—Dr. Minor, one of several gentlemen who recently withdrew from the Homœopathic Medical Society of the County of New York, writes as follows in the May number of the "New York Medical Times":

"In responding to a request that I should contribute something on the subject of sectarian fellowship to this journal, I assume that, since the request follows so closely after my resignation from all homœopathic societies, it is to be considered as an invitation to define my position with reference to homœopathy rather than to attempt an analysis of the system. As one of its former editors, there is no more appropriate place for the expression of my opinions than is afforded through this medium, and I feel that, under the present circumstances, no apology is needed for giving expression to my views in the personal form.

"While I am conscious of being in accord with many, it would be assuming too much to attach any other importance to the views I may advance than pertains to an individual opinion. I speak for myself alone, and have no fault to find with those who hold to different opinions. I may state in the outset that my resignation from the homœopathic societies is not due to any change in my estimate of the value of homœopathy. I have nothing to recant or retract, nor have I any grievance to ventilate. My action is based on the ground that a society that is distinctly sectarian in origin, character, and name, can not be accepted as the proper representative of any others than those whose belief is in harmony with this threefold characteristic. Such a society may tolerate the presence and welcome the assistance of those who reject the doctrines that constitute the system of homœopathy; it may allow the largest practical liberty of opinion to those who deny that the homœopathic law of cure is infallible or universal; it may receive into membership those who refuse to follow an exclusive system of practice, or to accept the appellation of 'homœopath'—all this is creditable to the liberal spirit of its members;

but, nevertheless, in its representative capacity, the society has not and can not have any other than a purely sectarian character.

"Believing, as I do, that the formula *SIMILIA SIMILIBUS CURANTUR* forms the best general guide in the selection of remedies, I do not recognize it as a law nor follow it as an exclusive method, but exercise the right belonging to every educated physician to make practical use of any established principle in medical science, and to employ any facts in therapeutics that are founded on experiments and confirmed by experience, so far as in my judgment they may tend to promote the welfare of those under my professional care.

"The members of the Homœopathic Medical Society of this county will recognize this statement as essentially the resolution which, as chairman of a committee, I submitted to the society in 1878, and which the society adopted, and afterward expunged from the record 'as unconstitutional, null, and void.'

"I think the society was right, for, while it would have been in accord with my wishes, and with those of the supporters of that resolution, for the society to have taken its stand as an unsectarian organization, such an attitude would not have been fairly representative of its members as a whole, nor would it have been in harmony with its distinctly sectarian name and purpose. The resolution was too radical for the time. Had it prevailed, the next step must have been to drop the homœopathic name. Although the society distinctly refused to recognize the right of educated physicians to use any other principle in medicine than that of homœopathy, it must be conceded that its refusal was consistent; it was consistent in its adherence to homœopathy as the only law of cure, and to the homœopathic formula as an infallible guide; but, as this position is radically opposed to my own views, the society can no longer be my representative in medical politics without a sacrifice of consistency on my part that I am not prepared to make, and therefore I leave it to those whose views it represents.

"Much as I value the professional qualifications and ability of those in the old school, association with them is purchased at too high a price when it involves either a denial of what experience has taught me, or the acceptance of toleration instead of fellowship. As between the two schools I have nothing in common with the exclusive views of the one or the traditional prejudices of the other, for I can see but little practical difference between the dogma of assertion and the dogma of denial, when one lacks proof and the other lacks knowledge.

"For those who are not familiar with the past controversies of the two schools of medicine, it is natural to inquire what necessity existed for a physician, holding to no exclusive theory or practice of medicine, claiming the title of physician instead of any sectarian appellation, and exercising his own judgment as to the methods employed in his practice, to identify himself with a distinctly sectarian organization?

"To this I reply, and not for myself alone, that the necessity was created and the action compelled by the prejudice and intolerance of the old school. To consult with a homœopath was to be driven in disgrace from every society, and to forfeit all professional standing and fellowship. To investigate homœopathy impartially, and to acknowledge that it possessed any merits, was to incur the active hostility of every organization, and to invite public abuse and insult. So bitter and intense was this feeling that it permitted no consideration of private character or professional standing to interfere with its action, but was adopted as a settled and inflexible rule in all cases. So far as the professional standard of homœopathic physicians could be fixed by the old school, there were only two kinds recognized as possible—fools or knaves.

"Under such circumstances there were but two courses open to those who chose to be guided by their own judgment with reference to homœopathy—they could be forced out of the old school, or they could go of their own accord, but go they must. And this explains the fact that I, among others, preferred the association of those who, while professing an exclusive doctrine, permitted the utmost latitude of opinion and action, to the fellowship of others who, professing the utmost liberality, were governed by the laws of a trades-union.

"I should be untrue, however, to my personal knowledge of men and affairs in the profession if I failed to distinguish the fact that, while this policy of traditional prejudice and intolerance has been the

dominant party spirit in the old school, it is deprecated by many of its ablest members. And in the homœopathic societies there are those who, while using the principle *similia similibus curantur* as far as their experience confirms its value, are, nevertheless, physicians in the broadest sense, and are misrepresented by any sectarian appellation; so in the old school there are many whose spirit of liberality and sense of professional courtesy are misrepresented by the policy of their society organizations. There is a large class of men in the profession who, without exhibiting any particular bias for or against homœopathy, have expressed their regret that such a policy existed in their organization, believing it to be contrary to modern ideas of the broad and catholic nature of medical inquiry, and contrary to the fact that, in a science at once so uncertain and so progressive as medicine, it is neither necessary nor wise to establish a line of demarkation between orthodoxy and heresy. Such a policy would have been appropriate to a purely sectarian body; it would have been a logical outgrowth of a system that was promulgated as the only true, infallible, and universal method of cure, but it is a most glaring instance of inconsistency when liberty of opinion and action, as the rights of educated physicians, finds its supporters in a sectarian organization, and its enemies among the members of a liberal and unsectarian profession.

"This brings me finally to the ethical problem as it stands at present. That the present discussion of the code of ethics is in the nature of a rebellion against antiquated prejudices and a policy of intolerance, that it is founded on an assertion of the broad principle that liberty of opinion and action is the right of every educated physician, is evident to those who appreciate the issues involved. The question of consultations with homœopaths is a mere incident in the discussion, and should not be allowed to hide the broader principle upon which it rests. No matter what position is finally assumed on this question by the old school, one important feature is already developed in the practical assertion of a liberal sentiment, of an unprejudiced mind, and of professional courtesy as the characteristic of many who have hitherto been misrepresented by the policy of a dominant faction. Against such it will be impossible to bring the old charges of prejudice and intolerance, and hence a very important feature of all past controversies on the subject of homœopathy will be eliminated from future discussions. Homœopathy must depend in the future, not on the easy defense that is possible against indiscriminate assault, but upon the results of sober investigation at the hands of those who will examine its claims and test its merits with impartial minds, not in the spirit of destructive criticism, but with the honest purpose of getting at the truth. So far as I can judge of the general drift of professional opinion, the current is tending away from narrow channels and out into a broader expanse, where there is room for all that is honest in purpose or effort. I look for no millennium of harmony, for experience will differ and opinions will clash for ever, but I look for more rational methods of inquiry, for truer conceptions of professional rights, for less of cant and more of justice, as the natural outgrowth of a sentiment that is wide-spread in the profession, and is not confined to any school nor represented by any organization."

ANOTHER RESIGNATION FROM THE HOMŒOPATHIC COUNTY SOCIETY.—Dr. Henry B. Millard has resigned from the Homœopathic Medical Society of the County of New York.

GAILLARD'S MEDICAL JOURNAL ON THE CODE QUESTION.—Under the heading of "A Strange Inconsistency," "Gaillard's Medical Journal" for May 12th says: "The advocates of the new New York Code of Ethics say that they had not in view the profit and great money gain resulting from consultations with irregular physicians. They claim that they acted on grand, equitable, humanitarian convictions, and, so doing, that they challenge scrutiny and public criticism. And yet—and yet—at the mere threat of having their names published as a guide to those physicians who wish to send patients on to New York to such physicians as are in affiliation with the profession at large, these advocates of equity, humanitarianism (and the rest of it), are so alarmed that they fly to the New York 'Tribune' and to the 'Medical Record' for protection and defense! If these gentlemen have their own approval, of what are they afraid? Rather should they be glad to see their names given to the public as the names of those who are hyper-

equitable and extra-humanitarian in their relation to those who need professional assistance. And if, as a rational and natural result, the physicians of the entire country send their patients to New York physicians in affiliation with the profession, the advocates of a higher humanitarianism should be more than content to suffer for their sublimated principles. Like Othello, they should endure, they should with him cry: 'Tis the cause, my soul,' and be proud to suffer all things and endure all things, for justice and the right."

In the same number of the journal in question we find the list of signers of the declaration against the old code. Indeed, there does seem to be a little "inconsistency" in the matter.

TYPHOID FEVER AND INFECTED MILK.—There appears to be, in various parts of the country, a fresh crop of epidemics, due to the use of infected milk. Not long ago we had to speak of such an outbreak at Wolborough; another—particulars of which are not yet available—is reported at Gateshead; and a third has just occurred at Exeter. The facts in each instance are of the familiar type. Cases of typhoid fever are discovered in houses which have no community of circumstances, except that they are supplied with milk from the same dairy. Inquiry reveals a case of disease at the dairy, or in its vicinity; the water-supply of the dairy is found to be from a source exposed to surface-soakage and excremental pollution; and there is usually also a suspicion that the water, though nominally used only to "cleanse the cans," has also been surreptitiously added to the milk itself. Dairies being for the most part situated outside municipal limits, this supervision becomes therefore the affair of the quarter sessions, and not that of the sanitary authority. Except in one or two cases, when the magistrates have had the sense to appoint the local officers of health as inspectors of dairies, it is hardly too much to say that the Orders of Council dealing with this matter are a dead letter. The health officer of Exeter, Dr. Woodman, in reporting to the Town Council the circumstances of the epidemic, suggests that "steps should be taken to have all dairies supplying a town periodically inspected and reported on." Evidently this is a first principle of effectual hygienic machinery, and it is little short of a national scandal that the present mockery of legislation as to regulation of dairies should be permitted to continue.—*Brit. Med. Journal.*

THE CHEMICAL LABORATORY OF THE JOHNS HOPKINS UNIVERSITY.—The President of the University is reported to have said recently: "While it is no doubt true that modern educational methods require large expenditure of money, it is also true that money may be wasted, and I think that some of the large laboratories furnish proof that money has been wasted. Regarded as a palace, our new laboratory is not, of course, to be compared with these, and I am glad of it. It is smaller, though plenty large. It is much less expensive in all its details, but—please note this particularly—it is not a whit less useful. It was built for use, and I think I can safely say that, when looked at from the standpoint of utility, it will bear the closest scrutiny. I believe it to be as good a laboratory for the teaching and advancing of chemistry as exists anywhere to-day, and it is superior to most."

THE LUNACY LAWS OF THE STATE OF NEW YORK.—A committee of the Medical Association of Central New York, consisting of Dr. Theodore Dimon, Dr. J. D. Button, and Dr. W. J. Herriman, appointed to report upon the advisability of changes in the New York lunacy laws, presented a long and carefully prepared report at the recent meeting of the association, concluding with a recommendation that the following resolution should be adopted:

Resolved, In the opinion of this Association, the lunacy laws of the State of New York have been carefully considered and wisely framed for the management and treatment of the insane, and it is not so much needed that these laws should be changed as that healthy public opinion should give its support to their successful administration.

COMPULSORY DRAINAGE OF VACANT LAND.—The Governor is reported to have signed a bill lately passed by the Legislature giving the Board of Health of the city power to compel the drainage of unimproved property within the limits of the city.

A MONUMENT TO FABRICIUS.—The municipality of Acquapendente asks co-operation from other Italian towns, and from public institu-

tions, in the establishment of a monument to the memory of Girolamo Fabrizio, surnamed "d'Acquapendente," more commonly known as Fabricius ab Aquapendente, the great anatomist to whom we owe our knowledge of the valves of the veins.

THE AMERICAN LARYNGOLOGICAL ASSOCIATION.—At the recent annual meeting, the following-named gentlemen were elected officers for the ensuing year: President, Dr. F. H. Bosworth, of New York; First Vice-President, Dr. S. W. Langmaid, of Boston; Second Vice-President, Dr. S. Johnston, of Baltimore; Secretary and Treasurer, Dr. D. B. Delavan, of New York; Librarian, Dr. T. R. French, of Brooklyn; Member of the Council, Dr. Beverley Robinson, of New York. Dr. C. W. Chamberlain, of Hartford, and Dr. J. N. Mackenzie, of Baltimore, were elected to resident fellowship. The next meeting will be held in New York, beginning on the third Monday in May, 1884.

THE MEDICAL ASSOCIATION OF CENTRAL NEW YORK.—At the annual meeting, held in Syracuse on the 15th inst., Dr. F. A. Mandeville read a paper on aphonia; Dr. W. S. Ely, of Rochester, reported a case of post-partum hæmatocele; Dr. C. S. Starr related a case of pyonephrosis; Dr. J. O. Roe read a paper on laryngeal sarcoma, and Dr. W. F. Sheehan read a paper on the differential diagnosis of variola and varicella. Dr. C. S. Starr was elected president; Dr. R. M. Moore a censor of Syracuse University; and Dr. W. F. Sheehan a delegate to the American Medical Association.

THE MASSACHUSETTS MEDICAL SOCIETY.—The one hundred and second annual meeting will be held at the Institute of Technology, Boston, on Tuesday and Wednesday, June 12th and 13th. The following order of exercises is announced: *Tuesday Morning.*—A paper on the tubercle bacillus, by H. C. Ernst, M. D., of Jamaica Plain; two papers on ergot, by G. L. Woods, M. D., of Springfield, and W. A. Dunn, M. D., of Boston. *Tuesday Afternoon.*—A paper on glycogen, by J. W. Warren, M. D., of Boston; one on phlyctenular disease of the eyes, by O. F. Wadsworth, M. D., of Boston; one on minor injuries of the spinal cord, by B. H. Hartwell, M. D., of Ayer; and one on plumbing appliances, by T. M. Clark, A. B. *Wednesday Morning.*—Business meeting; a paper on recent changes in the method of medical instruction, by E. N. Whittier, M. D., of Boston; one on neurasthenia, by J. S. Greene, M. D., of Dorchester; one on the artificial feeding of infants, by J. W. Spooner, M. D., of Hingham; one on the early symptoms of general paralysis of the insane, by W. B. Goldsmith, M. D., of Danvers; communications from the reporters of the district societies; introduction of delegates. At noon the annual discourse will be delivered by Dr. Amos H. Johnson, of Salem, and the annual dinner will take place at one o'clock, at the Skating Rink.

THE MEDICAL AND SURGICAL SOCIETY OF THE NEW YORK POLYCLINIC.—Under this title the faculty of the Polyclinic and the physicians who have attended the course of study at that institution have organized a society, the objects of which are: 1st. "To encourage the efforts being made in perfecting clinical teaching, and in the advancement of the standard of medical education." 2d. "To cultivate friendly personal relations between the practitioners who attend the Polyclinic with each other and with the faculty."

All physicians who hold a certificate of attendance at the Polyclinic are entitled to membership. At the time of organization the members numbered one hundred and fifty, exclusive of the faculty. The officers for the first year are: President, Dr. R. F. Blount, of Indiana, Chairman of the Section on Diseases of Children of the American Medical Association; Vice-Presidents, Dr. C. C. Burke, of Texas, Dr. J. W. McDowell, of Iowa, and Dr. J. A. Wyeth, of New York; Permanent Secretary and Historian, Dr. E. A. Ayers, of New York.

THE MARINE HOSPITAL ON BEDLOE'S ISLAND.—The work of removing the patients to the Seamen's Retreat Hospital, Staten Island, was begun last week, preparatory to the surrender of Bedloe's Island to the work of laying the foundation of the Earthen Statue of Liberty.

PROFESSOR CHANDLER AND THE BOARD OF ALDERMEN.—A petition having been transmitted to the Aldermen by the Mayor, expressing the desire of several thousand citizens that the board should reconsider its

adverse action on his nomination to another term of service on the Board of Health, the Aldermen returned the petition to the Mayor with an expression of opinion to the effect that they had no right to reconsider their action.

THE ALDERMEN AND THE CONTAGIOUS DISEASES HOSPITAL.—Last week the Board of Aldermen passed a resolution protesting against the establishment of the Board of Health's proposed hospital in Sixteenth Street for children suffering from infectious diseases. With regard to the real interests of the tenement-house population, the Aldermen could not have taken a more stupid course.

THE NEW YORK EYE AND EAR INFIRMARY.—Dr. Adolph Rupp, formerly an assistant surgeon, has been appointed one of the aural surgeons to the infirmary.

THE STATE BOARD OF HEALTH.—Dr. G. M. Moore, of Rochester, and Dr. Elisha Harris, of New York, have been re-elected president and secretary of the board.

GLANDERS IN ILLINOIS.—The "Weekly Medical Review" says that glanders has appeared among the horses of Whiteside and Perry counties in Illinois, and two persons, a father and son, have died, having become inoculated with the poison while caring for their sick horses. Strict measures are said to have been taken by the authorities to prevent a spread of the disease, a number of the animals having been shot and others quarantined, and it is believed that the disease is now entirely under control.

THE PROTECTION OF VICKSBURG AGAINST YELLOW FEVER.—The Health Officer of Vicksburg, Miss., has addressed the following petition to the secretary of the National Board of Health: "Having learned that the inspection service on the Mississippi River will be put in operation at Memphis, we would respectfully request that all inspection stations be established below this city as soon as possible, to be governed and managed as heretofore. This request is made for the reason that yellow fever prevails in several of the tropical ports, and we wish to be protected as far as possible by such inspection."

DEATH OF DR. JOHN D. BRUNS, OF NEW ORLEANS.—Dr. John Dickson Bruns, a prominent physician of New Orleans, died in that city on the 20th inst. Dr. Bruns was a native of Charleston, S. C., and received his medical education at the South Carolina Medical College. During the late civil war he served in the medical corps of the Confederate army, and afterward settled in New Orleans, where he held several professorships at different times, and achieved distinction as a lecturer.

DEATH OF MR. RICHARDSON, OF DUBLIN.—Benjamin Wills Richardson, F. R. C. S. I., etc., the well-known Dublin surgeon, died April 29th, at the age of sixty-four years.

DEATH OF M. MARTIN-DAMOURETTE.—The "Gazette hebdomadaire de médecine et de chirurgie" announces the death of M. Martin-Damourette on the 22d of April, at the age of sixty-one years, and adds that, although never enjoying an official position, the deceased gentleman was an accomplished private teacher of therapeutics to whom more than ten generations of his pupils are indebted for the better part of their knowledge of that branch of medicine.

NAVAL INTELLIGENCE.—*List of Changes in the Medical Corps of the Navy during the week ending May 19, 1883.*—Surgeon William A. Corwin, detached from the receiving ship Colorado and granted sick leave for three months. — Passed Assistant Surgeon M. H. Crawford, detached from the United States steamer Pinta, and ordered to the Navy-yard, League Island, Pa.

SOCIETY MEETINGS FOR THE COMING WEEK.—*Monday, May 28th:* Medical Society of the County of New York. *Wednesday, May 30th:* Arkansas State Medical Society (Little Rock.—First day); New York Medico-Legal Society. *Thursday, May 31st:* American Surgical Association (Cincinnati.—First day); Arkansas State Medical Society (second day). *Friday, June 1st:* Practitioners' Society (private); American Surgical Association (second day). *Saturday, June 2d:* American Surgical Association (third day).

Original Communications.

THE STATUS OF THE MEDICAL PROFESSION IN THE STATE OF NEW YORK.

BY HENRY G. PIFFARD, M. D.

Fifth Article.

AFTER the committee had agreed as to the report that should be made to the society, it directed that it should be printed in advance of the meeting, in order that it might be placed in the hands of those present at the earliest possible moment after its reception by the society. This was done that each and every member might have an opportunity to carefully consider its contents and prepare himself to offer objections to it if he saw fit to do so. The report was printed with the lines numbered, to facilitate reference when it came under discussion. It was presented at the morning session of February 6, 1883. It was duly received, the printed copies were distributed to the members, and the subject was made the special order for the evening session. During the day, and up to the time of its formal consideration, the code was the chief subject of conversation, and it is safe to say that it was looked on by the members from all sections of the State as a very decided improvement on the American code, and one that, in its practical operations, would accomplish much good for the profession in the State. The members present were apparently almost unanimous in its favor, the leading comment being that the change was one that should have been made years before.

At the evening session, the report of the committee having been read, Dr. Agnew moved that it be discussed *seriatim*. Dr. Roosa moved, as an amendment, that it be discussed as a whole, which was ordered. Dr. Roosa, taking the floor, then said:*

If the society will bear with me in a few remarks, I will at their close offer a substitute for this report. I recognize the character of the gentlemen who have made this report. Without exception, they are the honored servants of this society; without exception, they have had peculiar opportunities to learn the will of the profession in this State with regard to the code of ethics. I also recognize, Mr. President, the very great difficulty under which this distinguished committee has labored, for I remember that behind them are the traditions of a profession that believed it was necessary to bind each other with very strong legal bonds in order to prevent harm. I remember that they saw the traditions which were thought to be as obligatory as those of the Mosaic code, and necessary in order to promote righteousness among medical men. I therefore see their difficulties, and I honor the result of their labors. I believe that it presents a great advance over anything which has been offered to our profession up to this time. But my objection to this report is that it contains nearly every one of those things which in the progress of time have become distasteful to the profession of our day. I believe that it contains in it the very intrinsic objections which we constantly make against the code which I hold in my hands—this sentimental code of our forefathers,

which tells us how our patients should behave toward us, and which enters into such innumerable details as to the relations we sustain to our fellow-men that it is impossible to believe that the authors of it thought the medical profession was entitled to any discretion in the management of its own professional affairs. I think that if the committee had fully studied the sentiment of the profession of the Empire State they would have wiped out the code of ethics from its beginning to its end. I believe they would have left such matters to be settled by the individual discretion and wisdom and the good faith of each man in affiliation with this society.

After further remarks, Dr. Roosa offered the following substitute for the report of the committee:

The Medical Society of the State of New York, in view of the apparent sentiment of the profession connected with it, hereby adopt the following declaration, to take the place of the formal code of ethics, which has up to this time been the standard of the profession in this State.

With no idea of lowering, in any manner, the standard of right and honor in the relations of physicians to the public and to each other, but, on the contrary, in the belief that a larger amount of discretion and liberty in individual action, and the abolition of detailed and specific rules, will elevate the ethics of the profession, the medical profession of the State of New York, as here represented, hereby resolve and declare that the only ethical offenses for which they claim and promise to exercise the right of discipline are those comprehended under the commission of acts unworthy a physician and a gentleman.

Resolved, also, That we enjoin the county societies, and other organizations in affiliation with us, that they strictly enforce the requirements of this code.

Dr. H. G. Piffard, of New York, moved that the substitute be referred to the Standing Committee on Ethics, to be reported upon next year. The motion was lost.

Dr. Squire, of Elmira, then spoke to the subject, and was followed by Dr. Van der Poel, who said:

Let us for a moment see where we stand. The special committee upon the code of ethics, after consultation, have presented this report for adoption. That report is objected to upon the one hand by Dr. Roosa, because, liberal as we have made it, it does not go as far as he thinks it should, and we have placed restrictions upon ourselves which Dr. Roosa wishes to have swept away. On the other hand, Dr. Squire thinks that we have swept away too much of our restrictions in some directions, and that we have not swept enough away in others. Now, let me state what was the spirit which governed us in making up this code as presented in this report. We reached the conclusion that it would be impossible to affect the relations of man to man, or the gentlemanly conduct and behavior between man and man. We can not make a man a gentleman unless he is made so by nature; it is utterly impossible to bind men in these relations by any code of medical ethics. For that reason we left these things out of our report. Every one of Dr. Squire's references relate to conduct between man and man, and, as we believe that no written restrictions can affect the moral character of the man, we simply say that, in our opinion, we should govern our conduct in consultations as we have indicated in the report. Dr. Roosa goes further than we do, and he wishes to restrict the medical profession only by those influences which are comprehended under the bonds "worthy of a physician and gentleman"; and says that it is utterly useless to make any obligation, and that it should be left to the moral de-

* The extracts from the discussions are taken from the official record as published in the Transactions of the Society for 1882.

cision of each practitioner, and if you choose to consult with any man, you are perfectly at liberty to do so. I think the time has come when consultation should be made vastly more liberal than it has been. I have grown up with all the prejudices and tendencies of a man educated at the time I was, and during my entire life-time I have not consulted directly or indirectly with a homœopath, and therefore I can speak without fear or favor. But, for a few years past, I have been somewhat removed from active practice, and I have looked over the question a little more dispassionately; and it has struck me, as well as others, that our position in this respect was painfully narrow and restricted. If we can break down those barriers and show up the homœopaths to the public, and break down the barrier which enables them to get sympathy from the public, and leave it openly with the conscience of every gentleman to go or not to go as he sees fit, I think it would be a very great advance. There are many physicians from the country here at this time, and doubtless they will support me in the statement that the instances are not few in which there are two physicians in a village—one a homœopath, and the other a regular physician, using the ordinary expression. The homœopathic physician, perhaps, has a severe case of sickness, and it becomes necessary to have consultation and advice, and the circumstances are such that he can not send away to get such consultation and advice. Now, it seems to me to be cruel and heathenish, although I have done it myself over and over again, to hang upon a miserable code of ethics and say I can not go. Such cases, I believe, should be left to the decision of the gentlemanly feeling and instinct of the man.

The present writer then took the floor and objected to Dr. Roosa's substitute, fearing that it would be generally interpreted as removing all restrictions on the conduct of medical men and lead to the most unbridled license, and, in fact, to an ethical status equivalent to that of the eclectics. These fears he now thinks were unfounded, but still very strongly objects to the "substitute" on grounds that will be stated later.

Dr. Frazier, of Camden, said:

Now, upon the one hand the laws of this State say that certain men are physicians, and make them so by law; and here we have simply an effort made to make our laws comply with those of the State of New York. By not doing so, we give to other physicians who do not belong to our school a very great advantage in permitting them to say, in different neighborhoods: "We are practicing according to the laws of the State of New York, but these men will not meet us in consultation according to the laws of the State under which we all practice." That has been the argument which they have used, and which makes them strong, and which makes us appear stubborn and weakens us. I have always been of opinion that we should be permitted to meet these men if the permission could be placed in proper language; that is, if we could be permitted to consult with them without making it obligatory that we should do so.

Dr. H. D. Noyes, of New York, said:

I have been looking for something which would explain to me what it was that gave rise to this system of rules which we know under the name of the code of ethics, but I have not heard whence it came. It seems to me it must have had a beginning in controversies and animosities and peculiar conditions, which have to a large extent, or, perhaps, entirely, been abolished. The present status of the medical profession is one in which there is a

high sense of personal dignity, and feelings of propriety among its members in their relations to the public and to each other. At the same time we all know that a considerable class of men—both those who are called regulars and those who are irregulars—are prone to do things improper and unworthy of gentlemen. Now, the code of ethics, as it stands, is doubtless intended to meet the latter class of men, but I think that our influence in controlling them is absolutely nugatory. I do not believe that the old code of ethics has amounted to anything in the way of restrictions upon them. Every physician can call to mind instances of flagrant violation of both the spirit and the letter of the code by men who have not been called to account. I do not think that the temper and the spirit of the substitute offered by Dr. Roosa are the temper and tone of such rules as are applicable to the present status of the medical profession. I well remember the feeling of surprise which came over me when the American Medical Association met in the city of New York in 1854, and I first read what is known as the code of medical ethics. I never was more struck with astonishment than with that document. It seemed to be saying things which were both humiliating and unnecessary, even at that time. I am sure that the sense of this meeting is for the abolition of that code as it now stands. . . .

. . . My feeling throughout my professional life has been, first, to study what my duty is to humanity, and, second, to consider what my duty is to the profession. It has been with me a strong desire, and continues now, to see wherein professional honor and propriety can be sustained, and, in deciding with reference to consultations, I must say that I have uniformly refused to consult with so-called irregulars. At the same time I have done so under the feeling that I was entitled to protest against it. I shall vote in favor of the substitute.

Dr. E. M. Moore, of Rochester, said:

I have had the same wonder which Dr. Noyes has expressed as to where such a code as theirs (American Medical Association code) could have come from, and I took pains at one time to investigate in that direction as to how we could have had such a wonderful composition. It was really copied almost verbatim from a treatise written by Dr. Samuel Percival in 1760, in accordance with the condition of society presented in England at that time, which was entirely aristocratic, governed by the law which regulates the relations existing between patron and client.

About seven or eight years ago this subject came up in the American Medical Association. It began to be doubted whether it was all right. I received at that time a letter from Dr. N. S. Davis, of Chicago, the father of the association, to whom this matter had been referred, and I gave him my views upon the question, calling attention to the fact that Dr. Percival wrote the article over a century ago, and expressed the opinion that we had entirely outgrown such swaddling clothes. At the next meeting of the American Association the committee brought in their report, and it was to the effect that the code of ethics was so excellent that it should be maintained. . . . I am willing to strike it all out and leave the regulation of our conduct to the unwritten law, for we have uniformly failed to apply the rules of discipline under any code or system of ethics by which we have been governed. . . .

Additional remarks were made by Drs. Mosher, Wight, Squibb, and Gray. It is a curious fact that not a single speaker defended the propriety of the consultation clause of the old code, or attempted to advocate the merits of this instrument as a whole. Many, however, thought it would be better to defer the decision of the question until after it had

been brought to the notice of the American Medical Association. The majority thought otherwise, and the vote showed 52 in favor of immediate action to 18 opposed. Immediately after the vote, Dr. Roosa gave notice that at the meeting in 1883 he would move the adoption of his "substitute."

On the writer's return to the city, the almost universal expression of opinion was in favor of the action of the State society, the adverse criticisms being very few in number. On the day of his return he was met in the street by a well-known physician, who asked concerning the ethical situation. On being informed, he said: "I suppose, then, I can call in a homœopath if I want to." I replied that I saw no reason why the rule didn't work both ways, but inquired why he wanted a homœopath. He replied that he had a very severe case of scarlet fever under his care, and that the family were very anxious, and desired a homœopath in consultation; and added that in all probability, if he did not have the homœopath, the family would discharge him and employ the other. He stated that, rather than lose the family, he would have the consultation, provided he could not be disciplined therefor. This gentleman is now enrolled as one of the supporters of the old code.

In the discussion of public affairs by the medical press, the same rules of order should prevail that are customary in deliberative assemblies. Language that is improper in the latter should find no place in the former.*

The publication of the action of the State society permitted the medical press throughout the country to criticise it, and this they did in a manner that was not altogether in harmony with that spirit of Christian charity that the old code was supposed to be founded on. If the falsehood, hatred, and malice displayed by some of the advocates of this code are to be regarded as its legitimate fruits, God forbid that it should ever again be the supreme medical law in this State. The change in the code was a matter that affected the profession of this State only, and was not the business or concern of any one outside the State. The State society, with perfect deliberation, and with its eyes open, resigned from the American Medical Association,† because it believed that the consultation rules of that body were both morally and politically wrong, and that further acquiescence in them would be to perpetuate the evils that had already accrued from their observance.

The medical press of the country, in dealing with the

action of the State society, with few exceptions, failed to discuss the question on its merits. Few, if any, sought to ascertain the real motives and reasons which rendered the change necessary or desirable; few even discussed the effect that the change would have on the affairs of the profession in this State. Few appeared to recognize the fact that it was the duty of the State society to watch over and protect the interests of the profession rather than to leave them to the tender mercies of the American Medical Association.

On the contrary, the majority of the press assumed to view the subject in a light which reflected most seriously on the intelligence or honesty of the profession in this State. One of the most prominent charges, and one which, after it had been first enunciated, passed current as truth from one journal to another, was the statement, wholly unverifiable by facts, that this movement had been initiated and engineered solely by specialists from sordid motives.* The large vote (fifty-two to eighteen) by which the original change was made indicates either that the great majority of the profession in this State are specialists, or else that a very considerable number of general practitioners were of but one mind in this matter.

It may be asked why the State society did not first apply to the American Medical Association before taking this action on its own account. To which we may reply that, in the first place, it did not desire to carry a domestic affair into the counsels of that body, to inflict its own views on the profession of other States, to make any attempt to proselyte in ground that was as yet unprepared, or to meddle with the affairs of those beyond its jurisdiction. Secondly, it knew the history of the American Medical Association too well to expect for a moment that it would listen to any propositions looking toward the liberalization of the profession. Almost from the beginning of the history of that association, its practical management and the dictation of its policy have been in the hands of one man—one who is commonly spoken of as the "Father of the Association," and who, so long as he retains his power, will continue to use it, as he has used it in the past, as an obstacle to the scientific and political advancement of the profession and the welfare of the people. For evidence on this point, we need but to cite the latest ethical ordinance adopted by that body—one which clearly showed the animus of the controlling element of the association, and exhibited its ever-readiness to meddle with the domestic affairs of the individual States. We refer to the action that was recently taken in

* As many are apparently unfamiliar with the proper limits of debate, and with the restrictions as to language that custom has thrown around it, I will quote from a recognized authority: "Another rule in speaking is, that no member is at liberty to digress from the matter of the question, to fall upon the person of another, and to speak reviling, nipping, or unmannerly words of or to him. The nature or consequences of a measure may be reprobated in strong terms, but to arraign the motives of those who advocate it is a personality, and against order."—"Cusbing's Manual," Rule 211.

† The severance of this connection was exactly similar in principle to that which occurs when a member, for reasons that seem satisfactory to him, severs his connection from a medical society by resignation. It is neither an act of secession, nor an act of rebellion, terms which have been used in this connection by those who should have known better.

* All of the New York specialists who had anything whatever to do with the matter, or voted on the question, were members of the New York Academy of Medicine, which was under the governance of the American code. The action of the State society in no wise affected the ethical status of that body, which is competent to adopt any by-laws that it chooses, or any code of ethics that it desires. These members of the State society, therefore, who voted for the change simply gave freedom to those who were not members of the Academy without releasing themselves in any manner from the Academy's code; nor have they, during the past eighteen months, made any effort, or organized any movement, to change the ethical status of the Academy. It will be seen, therefore, that the specialists were not governed by the sordid motives that have been ascribed to them. They, less than any one else, have been affected by the change.

reference to the University of Michigan. We regret that in Dr. Flint's recent articles on the code this ordinance escaped notice, as it appears to us to be utterly indefensible from whatever standpoint it may be regarded.

At home, the action of the State society was discussed more temperately. The two most important medical journals of this city approved the change, while one or two others of minor influence were opposed. The profession of the State as a whole gave the matter but limited consideration, but as a rule a favorable one; the old code was pretty generally regarded as dead, and the recent action was simply the interment of its remains. A few months later Dr. E. R. Squibb circulated throughout the profession of the State, in his personal organ, "*The Ephemeris*," a protest and an argument against the change. This action was the first incitement to dissension and trouble in the State, and we can not but regard it as ill-judged and in bad taste. Dr. Squibb is not a practitioner of medicine, and has not for many years been placed in a position that would enable him to have a practical knowledge of the questions at issue; and even if he had, he should have left the discussion to those whom it immediately concerns. As a recognized member of the profession, however, he had a perfect right, of course, to discuss the matter; but it would have been better, we think, if he had done so in one of the public medical journals, in which his views and opinions might have received reply. As it was, he of necessity had the entire argument to himself, and was enabled to give his personal views the widest distribution that he chose.

A journal in a neighboring city, with even less motive, endeavored to excite dissension among the members of the county societies in this State, and it incited them to seditious action, urging them not to accept the edict of the State society, but to adhere to the American code, apparently unaware that such action by the county societies would be absolutely null and void.*

Our Southern friends also, with great unanimity, censured the profession of the State, and even suggested that the malcontents form a new State society, forgetting the old rule in physics that two bodies can not occupy the same space at the same time. The distance which separated them from us and the different conditions which surrounded them are sufficient reasons for a misapprehension on their part of the propriety and necessity of our action. We think, however, that they might have been a little more charitable in the expression of their views. They frankly charged us with desiring to affiliate with the lowest quacks

* Any by-law or code of ethics that the county societies may see fit to formally adopt in opposition to the edict of the State society is absolutely without force, and contrary to the statutes of the State. It is not binding on the members, nor can it be enforced. The statutes of 1813 and 1866 give legal force to such by-laws only as receive the sanction of the State society; any others that may be adopted are of less value than the paper on which they are written or printed. The county societies may therefore, if they choose, cling to or adopt the American or any other code (not approved by the State society) for purely ornamental purposes. They may be assured, however, that such a code can not be of any other use to them, except, perhaps, to beguile the American Medical Association into admitting them to representation.

and charlatans, just as in the old antebellum days they charged every abolitionist and opponent of slavery with the desire to marry his daughter to a "nigger." Long accustomed as they were to the idea that slavery of the body was right and proper, it may take them some years before they understand why it is that we in the North are unwilling to longer accept the slavery of the mind of which the old code represented the bonds.

Shortly after the meeting of the State society in 1882, an attempt was made to bring up the matter of the code in the New York Academy of Medicine. Notice was given that the action of the delegates from the Academy who had voted for the new code would be submitted to the Academy for its approval or the reverse. This was done by the friends of the old code who hoped to secure an expression of opinion adverse to the action of its delegates. At the meeting of the society at which the question was to be considered, Dr. Austin Flint, Sr., first claimed the floor, and, in a few brief but eloquent words, urged that the question be not brought up in that body, and moved that all action on it be indefinitely postponed, on the ground that the scientific interests of the association were too important to be hazarded by the introduction of medico-political questions of this character. This action was regarded by the opponents of the old code as almost a pledge that the question would not be raised again. They preferred to abide by rules and by-laws which were distasteful to them, and to gauge their conduct in accordance with ordinances regarded as oppressive rather than to risk the future harmony and welfare of the Academy. During the succeeding months the advocates of the State code rested on their oars, but the supporters of the American code were busily engaged in manufacturing opinion throughout the country adverse to the action of the State society. The most active agencies in this direction were the "*Medical News*" and the "*Ephemeris*," both of which endeavored to incite sedition in the county societies, urging them to repudiate the action of the State society, and to instruct their delegates to vote for the repeal of the State code.*

* The propriety of instructing delegates under circumstances such as these is open to question. It is not for a moment denied that the societies have the right to instruct if they so desire, but the wisdom of such a course is not equally apparent. Almost universal experience has shown that instructions are rarely given, except when a majority sees fit, through sheer force of numbers, to deny to the minority, no matter how strong it may be, any opportunity or share of representation. It is an expedient rarely adopted except when the majority fear that their cause is one that will not stand open discussion, and that their delegates can not be otherwise dragooned into its support. One of the most notable instances of this that occurs to us is a resolution that was adopted by the Philadelphia County Medical Society, April 23, 1879. About that time an almost universal cry had gone up to Congress to remove the oppressive duty from quinine. The medical profession were as a unit in the matter, except alone in Philadelphia. That city had for many years possessed the monopoly of the manufacture of this alkaloid, and feared that a removal of the aptly-called "blood-money tax" would injure its interests in this respect. From the swamps of the gulf-bordering States to those whose rivers flowed into the northern lakes there came a universal, heart-felt appeal for the removal of this onerous burden. Despite this fact, the physicians of Philadelphia, as represented in their county society, adopted the following:

Thirty or more of the county societies followed this advice, and instructed their delegates to vote for the repeal of the State code. The societies that took this action were only those entitled to a limited number of delegates, and the aggregate vote thus obtained hardly counterbalanced the votes of two or three of the more populous counties. In none of the larger counties was this action taken. It is true that Kings County, entitled to twelve delegates, did at one meeting instruct its delegates, under the urging of Dr. Squibb, to vote for the repeal of the State code, but this action was rescinded at a subsequent meeting of the society.

In New York County, it being the year for the election of delegates, upward of forty nominations were made at the September meeting. Of these candidates I do not recollect the names of more than two or three who belonged to the old code party. From the forty nominees, twenty-four (the number prescribed by law) were to be selected. At the election in October, the entire number elected were men opposed to the old code. This was not in consequence of any special electioneering, as from the code standpoint it mattered little which of the forty (with two or three exceptions) were elected. Those elected owed their election to the fact that they were suitable persons for the position, and were sufficiently popular. One or two of the unsuccessful candidates were men equally suitable and personally popular, but their pronounced position in favor of the old code being known, they polled a very small vote.

After this, very little thought or attention was given to the code in this city, much less, in fact, than in other parts of the country, our neighbors appearing to be really more solicitous about our welfare than we were ourselves. Ethical matters slumbered, and it was not until the stated meeting of the county society in January, 1883, that the question was again opened. At this meeting, Dr. L. A. Sayre moved that the delegates of the society be instructed to vote for the repeal of the State code. After discussion, this motion was lost. Not satisfied with this expression of opinion on the part of the society, the old code advocates procured the calling of a special meeting for the announced purpose of obtaining a vote on the question. At this meeting the question of instructing the delegates was again raised, and a motion to that effect was lost by a vote of 60 yeas to 147 nays, the question having been discussed by Drs. Flint, Barker, Garrison, and others.

This brings us to the eve of the meeting of the State society in February, 1883. The history of that meeting and subsequent events will be considered in our next.

PROVISION FOR THE DESTRUCTION OF UNWHOLESOME FOOD.—The Board of Health of New York City has recently adopted such amendments to its sanitary code as to increase the authority of its officials to enforce the destruction of unwholesome food and adulterated milk wherever they may be found in the city.

Resolved, That the delegation of this society to the American Medical Association be and is hereby instructed to use its best efforts to obtain the passage of a resolution requesting the Congress of the United States to make no change in the law regulating the duty on this valuable alkaloid or its salts."

These same physicians now demand that we shall pattern our morals and ethics after theirs.

THE CODE QUESTION.

By E. A. JUDSON, M. D.,

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In attempting to follow the discussion of the code question, I have been embarrassed at times to keep clearly in view the practical issues involved. False premises have been so plausibly associated with maxims universally accepted as to elude ordinary vigilance, while premises sound in themselves have, by faulty process of reasoning, given the appearance of validity to weak conclusions.

Without attempting to discuss all the points raised on either side, I will briefly give what seem to be controlling facts in the case, with glimpses of considerations which have influenced the judgment of some in favor of upholding the national code until modified or abolished by the body in which it originated.

Until the abolition of this code by our State society, it was the recognized standard of medical ethics throughout the entire country. It was adopted by the American Medical Association in 1847 as a common bond of organic union, and whatever its defects may be in the opinions of some, and however far it may be departed from in the practice of individuals, there can be little doubt that the moral principles it inculcates and the spirit that animates it as a whole are calculated to elevate the tone of professional conduct, and establish at least tolerable conditions of fellowship for medical practitioners in all the States of our Union. The American Medical Association has raised the profession in our country from a heterogeneous mass of discordant elements into an organized body of intelligent men, recognizing paramount obligation to one central authority. The medical profession, in virtue of its peculiar relations to society, naturally commands attention to its recommendations to legislative bodies. Any recommendation is likely to meet with favor in proportion to the unanimity with which it is urged by the profession at large. In order to secure such unanimity we are obliged to give up local preferences to a certain extent, and to meet our professional brethren of other States on such common ground as we can find. This common ground must, of course, be the sentiment of the majority. At such meetings we are at liberty to advocate any action we may please, relying on the force of argument to convince those who may not be of our opinion. The effect of this method is perhaps slower than some may desire in a given case, but, if the action proposed is in itself desirable, the advantage of increased force and momentum will compensate for loss in rapidity, while, on the other hand, if we break up into separate and rival camps, we become more exposed to unfriendly attacks, and waste in bitter internal feuds the energy that might be more usefully spent in advancing common objects. The American Medical Association, composed of practitioners from all parts of the country, is more likely to judge wisely in matters affecting our relations to each other and to the public than State or county societies. Its annual meetings attract wider and more respectful attention both at home and abroad. The work of its sections is creditable, and yearly increasing in

interest and value. Its proceedings are conducted with a dignity suited to the noble objects of its deliberations, and marked by an ability fairly representative of the broad constituency for which it speaks. It is a purely voluntary association, and, so far, has not felt the need of any chartered rights or privileges. It assumes no authority over its members, except such authority as springs directly from the liberty of American citizens to associate together for lawful purposes, and prescribe the qualifications of their fellowship. Such as it is, its official utterances have now justly acquired a moral power and importance attaching to the utterances of no other organization of medical men in our country.

Now, it is an admitted principle, underlying all associations for whatever purpose, that each associate shall abide by the constitution and by-laws of the organized body. This principle, indeed, is essential to the very existence of the organization, for it is obvious that, if any associate may at pleasure alter or abolish such provisions of the constitution and by-laws as seem objectionable, there can be no common bond of union. When, therefore, our State society, without bringing the subject up in our National Association, or making any effort to change its code in the constitutional way, simply abolished it of its own volition, it was equivalent to withdrawal from the National Association. This action seems grossly discourteous to the American Medical Association, and a flagrant violation of sound principles of representative government and of general ethics. As a self-respecting body, the National Association could not consistently admit delegates from our State society after the action of the latter abolishing one of its by-laws. Strange as it may appear, some of the most conspicuous advocates of the action taken by our State society contend that we need no written code at all to define the courtesies of professional intercourse.

It may be admitted as a conceivable proposition, that a difference of opinion might arise between the American Medical Association on the one hand and the profession of a single State on the other hand, involving questions of principle of such magnitude as to warrant the latter in inflexible adherence to their views, even at the expense of surrendering the advantages of larger association. In that case, however, it would seem reasonable to expect that the disaffected State should exhaust constitutional means of remedy before resorting to the extreme measure of secession. We would also expect to find the profession of the seceding State practically united on the merits of the question, and agreed on the policy of maintaining their view at all hazards. All of these conditions are wanting in the actual case. The national code has been in operation for thirty-five years, and it can not be successfully argued that its abolition is a matter of such urgent importance as to warrant us in a total disregard for the opinions of our professional brethren in other States. It is well known, also, that the profession of our own State are far from united as to the wisdom of the changes proposed, while many who feel indifferent about the changes deem it unwise to adopt them in face of the earnest opposition of a large number, if not a decided majority, of the

profession in our State. However much we may prefer the State code to the national code, or no code to either, it seems far more desirable that we should have one code throughout the country, instead of forty; and one county society, and one State society, and one national society, instead of two rival societies in county, State, and nation. The latter condition is the logical tendency of the principle of action introduced by the advocates of the new code in our State society, and this seems enough to condemn their action, whatever may be thought of the merits of the different codes.

The national code was abolished by our State society at its annual meeting in February, 1882, by a vote of fifty-two to eighteen. It would appear, therefore, that this important question was decided, and the whole profession of our State committed to an attitude of hostility to the medical profession of the United States, by a voting body of seventy men. This action is now defended by some who participated in it, on the ground of regularity. They say that the subject of code revision had been regularly introduced and referred to a committee; that the meager representation on the occasion was due to the apathy of the profession; that they supposed, and had a right to suppose, this apathy a sign that the profession would readily acquiesce in the policy so regularly inaugurated and carried through. They profess to be much surprised at the earnest opposition and warm discussion now going on in local societies throughout the State. All this, so far as true, may relieve them of the just odium that would attach to the conduct of men who, acting in a trust capacity as representatives of important interests, should take advantage of the confidence reposed in them to intentionally misrepresent the sentiments and wishes of the body for whom they were acting. Now, however, it is evident that they were mistaken in so interpreting the apathy of the profession, and it would seem that the same sentiment of honor which leads them to repudiate any intention of wrong-doing should impel them not to insist on perpetuating the wrong, but to join those who are endeavoring to undo their work, so as to leave the question to be decided on its merits, as a new question, now for the first time being discussed with an interest adequate to its importance. Such, however, is not their attitude at present.

The effect of this apparent inconsistency is unfortunate, because introducing suspicion of motives and confusion of issues into a controversy which might otherwise be free from both.

The American Medical Association embraces in its scheme of organization the great bulk of the profession in the United States. It aims to elevate the standard of medical education, to promote uniformity of law regulating the practice of medicine and the dispensing of drugs in our various States, to afford favorable opportunity for comparison of experience, for discussion of scientific contributions, and for ascertaining and expressing the sentiment of the profession on matters of public interest affecting the health of the whole or any large section of the country. Whether we shall maintain this association, or act in a way calculated to break down its organization, seems to some a more important question than whether one code is intrinsically

preferable to another. To others, the latter question seems the more important.

The two sets of arguments obviously involve different sets of facts, and reach independent conclusions. Both questions, however, were opened at once by the recent action of our State society, and there is reason to believe that some worthy members of our faculty now find themselves in a false position, through incautiously weighing arguments not really antagonistic in opposite scales of the balance.

The idea has been advanced that, our State Legislature having recognized certain practitioners as legally qualified, we are in some way bound to permit consultations with them, and to modify our articles of association accordingly. This argument proceeds from the mistaken assumption that the Legislature intended to limit the right we have, in common with all other voluntary associations, to prescribe the terms of our fellowship. This right springs directly from that fundamental liberty which it is the pride of our institutions to secure. In exercising it, we violate neither the spirit nor the letter of the law. Not only is the assumption of the argument mistaken, but, even if correct, the ground taken would be equally untenable; for, if the Legislature of our State should, in any unguarded moment, seriously attempt to limit the freedom of a voluntary association to prescribe its conditions of membership, their action would be unconstitutional, and we should find ourselves in presence of an issue in comparison with which our code question would sink into insignificance. How men presumptively free from intellectual cataract or moral strabismus can elaborate this argument and persistently repeat it, as if themselves convinced, I leave for those to explain who make special study of nervous phenomena.

The principal argument urged against the national code is that it is illiberal and arbitrary in the matter of consultations, unduly curtailing individual liberty, and not sufficiently regarding the interests of the sick. The advocates of State codes and of no code ring the changes on this theme with infinite variations.

"Let us have freedom. Our fathers died for liberty. Away with old fogies, the fossil representatives of past ideas and generations, too long lingering in our midst, to retard the progress of our age with their antiquated notions of ethics, hundreds, nay, thousands of years behind the times! What do we want of ethics, anyway; we, the apostles of liberty and special champions of humanity in the midst of a bigoted and narrow-minded profession? Are we not honorable men and gentlemen? See what weighty characters we bear, and how we shine in the effulgent rays of noble distinction. History shows that persecution is profitable to the persecuted. We have the courage of our convictions, and are willing, even anxious, to wear the martyr's crown. And who are you who oppose us? You may have some physiologists among you, it is true, but what has physiology to do with practice? If you wish to enlarge the visual angle of your mind's eye, and develop your center of ethical sensibility, give exclusive attention to diseases of the eye, or ear, or skin, or female genital organs. Go to now, ye men of little weight, and make yourselves like unto us;

so shall ye be magnified in the sight of all the people, and your mouths shall be filled with fat things, yea, and your cheeks also shall in no wise be diminished.

Of course, I do not mean to say that all this is taken literally from the speeches or writings of those who defend the action of our State society, but that many of their arguments do seem to lean for support on the Jingo ideas conveyed in the foregoing words. There has been a great deal of beautiful talk addressed to the public, in order to create the impression that a battle is waging among the doctors, in which the friends of liberty and progress and everything that is lovely are on one side, and that the enemies of these excellent ideas are on the other side.

We know well enough that this is not the case, and that there is no question of civil liberty involved at all. The adherents of the national code, if they find themselves a majority in our State and district associations, propose to take possession of these organizations and control their policy. Should they succeed, those who wish freer consultations than may be allowed, or who consider the restrictions of the association in other respects too irksome to be borne, will be at perfect liberty to form such other associations as they please for mutual support and propaganda of their ethical views. Should the adherents of the national code find themselves in the minority, they will have the same liberty to form other associations, restricting their membership to such as are willing to unite on the terms proposed. Any bitterness of feeling and any injury to common interests that may result will be justly attributed to the peremptory action of those who, not content with their own secession from the main body of the profession in the United States, virtually insist that those who do not agree with them shall also sever their connection.

In the matter of consultations, it may be a fair question whether the attitude of the regular profession may not now be judiciously altered; but many of the arguments advanced in favor of the alterations proposed do not seem conclusive, and are founded on a misapprehension of what the attitude really is. Members of the regular profession hold themselves ever ready to relieve the suffering public, without any limitation in the choice of remedies or the mode of their administration, except the limitations imposed by an enlightened judgment and regard for the interests of the sick. Having investigated the complicated mechanism of the body, its various physiological and morbid conditions, and the means of relieving its maladies, they are strongly obligated to lead and not to follow public opinion in matters medical. Recognizing the responsibility of this leadership, and realizing, as the general public can not, the immense injury done to society by professors of the healing art whose pretensions are unscientific, and often fraudulent, the regular profession says to the public: "Our doors are always open. We welcome gladly all educated physicians into our midst, stipulating only the observance of such rules as may from time to time be adopted in order to secure the scientific standing and honorable character of the profession at large. We require subscription to no therapeutical dogma, because we can find no sound dogma of such general application as to make it a safe guide in

treating the various diseases and injuries to which we are called. We consider freedom from any such dogma essential, in order to secure the best results at the bedside of our patients. There is no good reason why any competent physician should remain outside of our ranks. If he does so, we do not care to meet him in consultation, for we are sure to disagree in our views, either of treatment or of the principles which ought to govern the conduct of honorable men, and disagreement at the bedside is unpleasant for all concerned, and, what is of more importance, dangerous to the patient."

If this is the real attitude of the profession, it may not be absolutely the wisest possible, but certainly does not deserve the harsh censure that has been so freely indulged in of late.

It is said that the code ought to be abolished because it has failed to accomplish its objects. In proof of this failure, we are pointed, on the one hand, to its infraction by those who are bound to observe it, and on the other to the continued existence, if not actual increase, of quackery. But infractions of the law and the continued existence of the evils sought to be remedied by it do not prove that the law ought to be abolished. Nor is it satisfactorily established that there is any more quackery at present than there has ever been. It is admitted that practitioners for whom special indulgence is now solicited have virtually abandoned their peculiar tenets, so that there is nothing to prevent their joining the regular profession, except the desire to reap pecuniary profit from erroneous notions, disseminated among the people, and still encouraged, though at heart despised, by themselves. I can not see how a normal moral sense can recognize these people as worthy of special approbation, or the fellowship of honorable men.

Quackery has flourished in all ages, and will continue to flourish so long as it is profitable. Medicine is only one field in the large domain of its enterprise. It adapts itself to all fashions and to all ranks and conditions of men. For the poor, and the ignorant, and the feeble intelligence, it has its faith cures, and clairvoyants, and seventh sons of seventh sons. For the rich, and educated, and superior intelligence, it takes a more reputable garb, borrows the language of science, assumes a Greek title, repeats a sonorous Latin formula, and talks learnedly of mysterious potencies and dynamized dilutions. These are the fashions of to-day. The form may change, but the thing itself remains the same. It flourishes on the ignorance and credulity of the public, and the richness of the soil was lately demonstrated, in a manner mortifying to the vanity of our age, in the Wiggins incident. Here was a veritable quack, if there ever was one, who succeeded, by sheer impudence, in foisting himself on the attention of the public. He pretended to be able to predict a terrible storm and immense tidal-wave by astrological calculations on the conjunction of planets. His previous predictions had signally failed to be verified, and yet, in spite of all this, many thousands of people had faith in his prophetic power, and regulated their movements accordingly. The effect was not confined to the ignorant; it included many of cultivated intelligence. The interest was so great that our leading metropolitan journals gave up several columns daily to the subject. Of course, there was no truth

whatever in his pretensions, but this seemed to make no difference. And yet we boast of our high civilization and wide diffusion of knowledge, with our steam-engine, and telegraph, and printing-press, and public school. An able writer in one of our newspapers, pointing the moral of this humiliating tale, remarks that "the amount of impression made by Wiggins's prediction on the public mind is, like spiritualism, a striking illustration of the small extent to which the masses are still influenced by what is called the scientific spirit."

Surely, in the light of such an incident as this, we may well cease to wonder when we hear of the marvelous cures wrought by charlatans of all kinds, and listen to the testimony of eye-witnesses who scoff at our incredulity. This state of things is due to the infirmity of our nature and to the imperfection of our knowledge, and will last until the principles of evidence are far more generally understood and appreciated than they are at present. Whatever the cause of the phenomenon may be, we must recognize the existence of a large class in the community to whom the awe-struck attitude of mind is congenial, if not habitual, and who are predisposed to contemplate with peculiar delight whatever is mysterious and marvelous. This class constitutes the Eldorado of quackery, whose rich mines, far from being exhausted to-day, are constantly alluring unscrupulous men into regions of questionable enterprise. Centuries of evolution have failed to eradicate the evil from society, and as physicians we must deal with it as a permanent factor. Is it best for the honor and character of our profession to abolish all moral considerations in formulating our tests of fellowship? Is it best for the interest of the public, to break down the barriers which, in spite of exceptions, do, to a certain extent, separate us from the horde of adventurers on the borders of medicine? Is it the dictate of humanity that the medical profession should deliberately encourage what it believes to be bad for the health of the community, and officially wink at errors and superstitions which, in all ages of the world, have impeded its progress?

As practicing physicians, we are drawn in one direction by our scientific relations and nobler impulses, and in an opposite direction by the baser claims of business expediency. "Temptation hath a music for all ears." Let us be careful not to imbue ourselves too deeply with ideas current in the commercial atmosphere that surrounds us. Let us uphold the banner of science, truth, and honesty. Let us leave therapeutical dogmas to our unworthy rivals, recognizing but one school of medicine—the acknowledged progressive school of rational medicine. Let us devote ourselves to the noble art of healing, receiving from the hands of science such ripened fruit as she may pluck from the tree of knowledge, and giving this to our patients, as the best that we can give them, so long as the tree of life shall remain inaccessible to human approach.

HYPERTROPHY OF THE BREASTS.—At the last meeting of the Société de Chirurgie, M. Desprès presented the portrait, painted by Horace Vernet, of a patient operated upon by M. Manec for hypertrophy of both breasts—the one weighing sixteen French pounds, and the other fifteen. The young girl who was the subject of the case afterward married and had four children.—*Med. Times and Gazette.*

CONCERNING MEDICAL ETHICS.

By F. A. BURRALL, M. D.

"Let us have peace."

If the wisest men always gave us the best advice, to them might be referred the settlement of all doubtful questions; but experience teaches us that the choicest suggestions sometimes come from the simplest and most unexpected source. Even a stray bit of paper blown into our path by accident may contain the very item of information for which we had in vain ransacked the most promising authorities. So, it seems to me, any physician of the throng may, without explanation or apology, give publicity to his own views on this subject of medical ethics which has for several months occupied so much attention in medical circles.

The regular profession is at present divided into those who favor "the old code, the new code, no code, and an amended old code." Under these heads may be arranged the different shades of opinion which are connected with an agitation as general as any which has stirred the minds of physicians for years. It is very important that the question should reach an amicable solution, since men equally prominent and conscientious are arrayed on either side, and the opinions are held so decidedly that there is danger of another division in the profession. It is almost to utter a truism to assert that union is an element of strength both within the profession and in its relations to the public. Physicians are supposed by the public to be always differing from each other in matters of opinion, and a variance so great as that which now concerns the question of medical ethics would be regarded as only in keeping with the traditional discordance. Such a jarring undoubtedly lessens the respect in which physicians are held by the community, and the varied phases of the contest furnish choice newspaper items, where they are ranged with confessions from the scaffold and the exploits of the ring.

It is also desirable that a friendly settlement should be reached, since the number of those who are dissatisfied with the existing condition of medical ethics is very large. There is a feeling that the present regulations do not represent the necessities of the times, and it does not seem just to suppose that the discontent rests only upon a pecuniary basis. Many believe that under the code the virtuous are disciplined and have virtue for their reward, while the unscrupulous flourish unscathed. If only a small number of physicians were in the opposition, and these comparatively unknown, a large majority might demoralize or crush them. Perhaps this might be done even under the present circumstances. This, however, is doubtful, since the discontented represent the good qualities of the profession as well as their opponents; certainly among them are many who have always been esteemed and honored for their intellectual and social qualities. It is an opposition which should, if possible, be reconciled, and its strength saved for our general welfare.

Thus far there has been a contest in which old methods, sometimes reminding one of a political struggle, have not

been wanting. It is said that when men begin to differ in opinion they soon commence to call each other names. A moment's reflection will recall many epithets which have thus originated in the dissensions of the past. History is full of them, and collected together they would stock a vocabulary. So in the present instance we hear of "old" and "new codists," "old" (not new) "fogies," "the enemy," "quacks," and "trickery," as well as other terms. Such appellations do not imply that those who use them have lost all respect and esteem for their opponents, but they rather resemble the sparks which fly up from the furnace and indicate the intensity of feeling below.

One side summons its followers to be present at a meeting for the purpose of throwing an overwhelming vote in favor of some particular measure, and, when a similar course is pursued by the opposite side, the first are loud in their censure, and characterize the proceedings as worthy of a primary election. Even the force of law is suggested as a method of convincing those who are reluctant in the adoption of new measures. Thus the combat deepens, and all the time a settlement of the question is endangered by an ever-widening breach. Physicians are men accustomed to a training which cultivates self-control and judgment, and it would seem as if some satisfactory basis of agreement might be attained from a calm consideration of what was best for the interests of the profession and the public, and what the times demanded. Such a conclusion would be more lasting and beneficial than any which could be secured by manipulation or machinery.

If we consider the old code of ethics, it stands before us as a historical document which has been a kind of rallying point for many years. It reflects the pure and lofty sentiments of its authors, perpetuates the fraternal relations of the medical profession, cultivates an *esprit de corps*, and breathes that philanthropic spirit without which medicine can not hold the high position to which, when worthily followed, it is eminently entitled. It can not be denied that its phraseology is antiquated; but through its quaint sentences appears that spirit of honor and integrity which medical men have always been taught to cherish and respect.

In so far as the old code refers to the duties of physicians to patients, and patients to physicians, this historical document would still have remained unchallenged, but there are two or three clauses which have elicited discussion, and chiefly that which refers to consultations. Here is the paragraph:

"ART. IV.—Of the Duties of Physicians in Regard to Consultations.

"SECTION 1. A regular medical education furnishes the only presumptive evidence of professional abilities and acquirements, and ought to be the only acknowledged right of an individual to the exercise and honors of his profession. Nevertheless, as in consultations *the good of the patient is the sole object in view*, and this is often dependent on personal confidence, no intelligent regular practitioner, who has a license to practice from some medical board of known and acknowledged respectability, recognized by this asso-

ciation, and who is in good moral and professional standing in the place in which he resides, should be fastidiously excluded from fellowship, or his aid refused in consultation, when it is requested by the patient. *But no one can be considered as a regular practitioner or a fit associate in consultation* whose practice is based on an exclusive dogma, to the rejection of the accumulated experience of the profession and of the aids actually furnished by anatomy, physiology, pathology, and organic chemistry."

In the new code it is stated that "members of the Medical Society of the State of New York, and of the medical societies in affiliation therewith; may meet in consultation *legally qualified* practitioners of medicine. Emergencies may occur in which all restrictions should, in the judgment of the practitioner, yield to the demands of humanity."

The difference between the regulations of the new code and those of the old code in this matter is, that while in the one case the regular physician is allowed to meet any legally qualified practitioner, in the other case, if the physician in attendance belongs to the class of irregular practitioners, a regular physician may not meet him in consultation.

By the words of the old code, "in consultations the good of the patient is the sole object in view." But as a patient might, from loyalty to his attending physician—who, although of irregular proclivities, was a friend, or had, perhaps, aided him in previous illnesses—be unwilling to set him aside, or, in fact, unable, from domestic or other reasons, to do so, he would be obliged to forego the desired opinion. Thus the path to the bedside would be obstructed, and the statement which claims that "the good of the patient is the sole object in view" is not entirely correct. It would, I think, be more in accordance with facts to say that, regular physicians being in attendance, the good of the patient is the chief object in view.

There is also another clause in the old code which seems somewhat inconsistent, and this states that it is derogatory to professional character for a physician to hold a patent for any surgical instrument, which it ranks with a secret nostrum. To class the result of an original effort of the brain, in which are involved important scientific principles and which reflects credit upon an original and inventive mind, with some, perhaps, useless mixture of inert fluids or harmful compound which may even produce deleterious effects when ignorantly used, seems unjust and illogical. The construction of such instruments is no secret, nor do they in any way partake of the nature of a nostrum. Books are written, and sometimes it may almost be said that the name of the author is the only original sentence which they contain. These are copyrighted or patented, and the author receives his royalty on the sale. Where is the distinction which can be made to favor a book without originality, as against some useful mechanical appliance which combines the most scientific principles, and which would aid physicians vastly in their care of the sick? The spirit which prompted this clause seems eminently worthy of its originators. It was intended that no restrictions should be placed upon any means which might benefit the community. Practically, however, things were brought together which

are essentially different, and, as it were, have been disposed of in one lot.

These two clauses, with the exception of one other, which refers to methods sometimes resorted to for the purpose of obtaining notoriety, are the only ones concerning which there has been any difference of opinion among the mass of physicians. The instructions which the time-honored document gives are those of a sound *vade mecum*, and might be occasionally consulted by all of us with benefit, as indicating the lofty aims of professional life.

The clause referring to unusual methods of obtaining notoriety is here subjoined:

"It is derogatory to the dignity of the profession to resort to public advertisements, or private cards, or handbills, inviting the attention of individuals affected with particular diseases, publicly offering advice and medicine to the poor gratis, or promising radical cures; or to publish cases and operations in the daily prints, or suffer such publications to be made; to invite laymen to be present at operations, to boast of cures and remedies, to adduce certificates of skill and success, or to perform any other similar acts. These are the ordinary practices of empirics, and are highly reprehensible in a regular physician."

Against such gross methods of obtaining prominence the general sentiment of physicians is firmly set. Still it must be admitted that under the pressure of the increased competition of the present day the deference which is paid to wealth, and the observation that bare notoriety is an ample *ποῦ στῶ* for the display of professional abilities, the privileges of advertisement are strained to the extreme limits of the ethical tether. A glance at current medical literature shows a latent desire that, if possible, there should be an equalization of rights in this respect, or, to use a common phrase, no handicapping. An honored authority in ethics, as in medicine, thus writes of this section of the code:

"There can be no difference of opinion in the minds of worthy physicians as to the acts which in the third section of this article are specified as derogatory to the dignity of the profession. But the propriety of the interdiction of these acts by the code is not always appreciated by the public. As a reason for their being interdicted as 'highly reprehensible in a regular physician,' it suffices to say that they are 'the ordinary practices of empirics.' The public should understand that these practices are criteria of irregular or unworthy practitioners. With this understanding, if persons consent to be influenced by such acts, the responsibility for consequences lies with themselves."*

Since, then, the mass of the old code is acceptable to the larger number of physicians, why do we need a new code? This document, which has not entered the medical world without considerable artificial assistance, is, so far as the relative importance of the various paragraphs is concerned, one clause surrounded by a code. The kernel section of the whole instrument is that which permits consultations with any "legally qualified practitioner." It is a greater freedom in consultations for which the opposition is striv-

* "Medical Ethics and Etiquette." By Austin Flint, M. D.

ing. Since, however, it is admitted that the new code does not essentially differ from the old, except in that clause which refers to consultation, and since the old code commends itself in the main to the vast majority of the profession by its excellent ethical teachings, the introduction of a new code seems superfluous.

Is any code necessary? On the platform of no code meet the extremes of professional character. They meet, and yet the separation is world-wide. Some of the most honorable physicians think that the only code necessary is that which usually regulates gentlemen in their ordinary intercourse with each other. On the other hand, that comparatively small band of practitioners which rides with a free lance to seize its advantage in whatever quarter it may present itself looks with aversion upon the restraints of any code, from the golden rule down to the ordinary barriers of professional courtesy. The ideal code would presumably be one not of restraint, but rather of guidance—simply a set of rules by which the conduct of physicians toward each other in the delicate relations of practice might be indicated, and which could be used for reference in doubtful cases. These would be like the by-laws of a society, or those rules of navigation which direct the sailing of vessels. At present there are two uses of a code—one as a ready method of guidance for physicians, another as a check upon men who are disposed to take unfair advantage of their colleagues. The practice of medicine differs from that of other callings, since it combines the incongruous principles of sentiment and trade. It is doing work for money, but that for which remuneration is received is essentially unlike the objects of merchandise. The transaction in one case refers to "human creatures' lives," in the other to material substances which can be weighed and handled and have a definite value. Sometimes what are called worthless lives are in question, but even here that life is held by the patient as of more value than any other possession. If the usual laws of trade held in medicine, the rich would receive the benefit of treatment to the disparagement of the poor. As it is, the poor are often better cared for than the wealthy. By urging the adoption of sanitary laws and pointing out the causes of disease, medical men are, as it were, all the time interfering with the increase of their own business by preventing sickness. They could not do otherwise and carry out the principles of the old code. With such labor comes a sense of responsibility which raises the work above the idea of so much money for so much time, and surrounds all with the claims of duty to the sick. The physician may be discharging duties which in themselves are allied to those of the menial, or occupied with the most delicate and sacred trusts connected with the structure of society; in either case the high nature of the office transfigures the worker. If there were not written ethics concerning men who are engaged in such pursuits, they would develop from the very nature of the case; and, if this be so, why should not such regulations have the definiteness of a written document?

Is there no method for arriving at a solution of the present misunderstanding? A large number of physicians throughout the country regard the old code with feelings

of reverence. Such as these would feel greatly opposed to shelving the old document and substituting a new one. At the same time, many of them would not be averse to enlarging the liberties of physicians in consultation, or, at all events, of giving that system a trial. Many believe that regular medicine would gain ground by thus coming in contact with different varieties of practice, if such there be. The community would probably learn that many supposed grave disorders from which they suffer did not merit the serious names applied to them, and that the curative virtues attributed to the dynamics of subdivided atoms were the result of the restorative influences of unimpeded natural laws. Why, then, may not the old code be amended? It would be a concession to the large number of physicians who believe—and their faith is not in all instances influenced by any sordid motive—that in the interest of the sick a better opportunity should be given for greater freedom in consultation. The more incompetent the attendant, the more does the patient need good advice. When the strength which persecution gives to any new movement was taken away, and the search in scientific medicine was unimpeded by dissensions, the noble traditions of the old code would still remain, and what was new would be in the nature of an amendment, as amendments are made to constitutions or by-laws. Who can believe that those who advocate greater freedom in consultations are all animated by personal considerations? Men surely do form opinions on ethical matters without any regard to the result which their conclusions may have upon their individual interests, and why should it not be so in this instance? Medical men are certainly inspired by a different sentiment from this, or else the traditional spirit which has come down from early ages, and which still illustrates itself wherever medical charity exerts its beneficent offices, is on the wane. There seems to be a fair ground for a difference of opinion concerning greater freedom in consultations.

The method of settlement is somewhat difficult, since the expression of a majority does not necessarily change one's opinion. But could not some method similar to the following be adopted as agreeable to all? In case a patient or the friends of a patient who is under the care of an irregular practitioner desire the advice of a regular physician, such a physician may meet the practitioner in attendance, whoever the attendant may be. His conduct toward him can surely be that which he would adopt toward any one else whom he might meet in the ordinary relations of life. He examines the patient, gives his views of diagnosis and treatment, and retires. To continue in attendance with some one whose ideas of medicine were entirely different from his own would not contribute to the benefit of the patient. *Meeting* is not affiliation; it is the sick man who needs the advice, and, if he receives it, then it may more properly be said that the "good of the patient is the sole object in view." At present the regular physician may not, consistently with the code, meet the irregular practitioner. By an arrangement like that indicated, the sick man could receive whatever benefit might arise from a consultation without a too onerous formality. It might happen also that a patient or his friends would wish the opinion of an irregular

practitioner; here the attending physician could use his own judgment whether to meet such a one or retire from the case. The circumstances would be different, since he would not consider that the good of the patient required any such opinions, and, under ordinary circumstances, he would probably refuse such counsel, or retire if it were insisted upon.

As to the body which shall decide the question concerning greater freedom in consultation, it seems as if that decision ought to come from the American Medical Association. That organization represents the profession of the whole country more than any other. It has already given its codes for professional guidance, and it seems most proper that this office should continue to devolve upon it. In the association formed to uphold the old code of ethics there is the additional clause that this is to resist any change which does not emanate from the body in which it originated. This indicates that movements toward such a change have been contemplated, but deprecates any revolutionary or secessionary measures, which would only leave the ragged edges of division, and interfere with professional harmony. There are some, perhaps many, in the association for upholding the code who would like to see greater freedom in consultations, but who wish that the change should spring from the large representative body of the American Medical Association. Unless this change does come, there is danger of a greater alienation than now exists, and strength will be given to an opposition which, it would seem, might be reconciled for the benefit of all.

It does not by any means follow that those who defend existing institutions are more really the friends of such institutions than those who criticise or oppose them. An error is no less an error because it has received the approval of centuries than one which is just fledged. Thoughts and principles which have become embodied in documents as rules for action should be tested by the essential laws of truth and taste and common sense, and rise or fall in proportion as they correspond to such a standard.

So it seems to me that any suggestion concerning a change in that estimable declaration known as the code of medical ethics should be received respectfully and considered dispassionately. We must be ready to receive changes, for they will come, and the *fait accompli* is a stronger argument than any document or rule. When I entered the profession, the physician who used electricity as a healing agent was regarded somewhat suspiciously as of quackish proclivities, and an oculist was, as Falstaff has it, "little better than one of the wicked." The opinions of to-day show how high the tide has risen since then. An opinion is no better and no worse because it is mossy with the reverence of accumulated years. There is a conservatism which never learns and never forgets, and there is also a conservatism which does not yield readily to new opinions, but which tests the new-comers by essential laws of truth and right, and does not fear lest what is essentially necessary and true will always maintain its own vigorous power.

A QUARANTINE STATION has been established at Pensacola by the Surgeon-General of the Marine-Hospital Service.

WHAT IS A LICENSE TO PRACTICE MEDICINE?

By H. R. HOPKINS, M. D.,

BUFFALO, N. Y.

THE proposition has been stated at various times, by different writers and speakers, that the medical profession of this country holds a different relation to the people from that maintained by the profession in many parts of the old world; that this difference results from and is in harmony with our theory of government of the people, by the people, for the people.

The writer, in the course of some remarks upon the question of ethics at the recent meeting of the New York State Medical Society, in referring to this peculiar attitude of the profession to the State, maintained in particular that the relation of the State Medical Society to the law was such as of necessity to seriously influence the relations of that society to the homœopathic profession.

The premises of this conclusion being, 1. That the necessities of their work and custom have made consulting attendance to be recognized as essential to or included in the enjoyment of the rights and privileges of physicians; 2. That the New York societies, State and county, being corporations, could only adopt such by-laws and regulations as the statutes creating them authorized; 3. That there is the greatest possible difference in by-law making power between such incorporated societies and the voluntary bodies, such as the American Medical Association; 4. That it is unwise for the State Medical Society to attempt to defy, oppose, thwart, go contrary to or inconsistent with the laws of the State, the policy and theory of our government, and the temper and feeling of our times; 5. That a by-law of the New York State Medical Society, out of which can be spelled the excuse for withholding consulting attendance from any person legally qualified to practice medicine in this State, would be unauthorized, illegal, and void.

Without attempting to review or in any way controvert the foregoing premises, the author of "Medical Ethics and Etiquette" pronounces the conclusion absurd, and proceeds to mark the degree of absurdity by citing the imaginary picture of a Christian minister being obliged to exchange pulpits with and at the instance of a Mormon elder, for the reason that in the eye of the law, in this country, all religious denominations have equal rights.

The writer has the feeling that the policy of one party in the code controversy will be largely based upon the few allusions found in the fourth and last articles of the series above referred to, and for this reason their statements should receive careful examination.

Let us see how much, if any, parallelism exists between the illustration cited by our author and the situation he was supposed to be discussing.

The laws of our land do not recognize any religious belief, but simply undertake to say how the temporal affairs of religious corporations shall be managed. On the other hand, the law does recognize the practice, or the attempt to

practice medicine, and distinctly confers the rights of such practice upon certain individuals, and then only in consideration of the fulfillment of certain preliminary conditions upon the part of the candidates for such rights. Any one so minded can at any time become a Christian minister or a Mormon elder; but let him attempt to practice medicine without first complying with the preliminary conditions, and the hand of the law is at once laid upon him in heavy penalty.

Again, the Mormon elder may teach any amount of pernicious doctrine, and the people suffering therefrom have no redress; but let a physician give bad advice, or neglect to take due and proper care of his patients, and the law holds him responsible for any damages occurring therefrom. In fact, it is hard to conceive of two classes more dissimilarly related to the law than religious teachers and physicians.

Another objection to the illustration is, that neither the minister, the elder, nor their respective hearers have any wish for such interchange of services, while there is not a day that the people do not solicit the attendance of physicians in consultation with homœopaths, and can never be made to see any good reason why such consultation should be refused.

I submit it to the candid men of our profession, that there is no possible disposition which can be made of this illustration to throw light upon the question of the codes, and that in its use its author has left the domain of argument and instructive writing, and is appealing to the class prejudices, the party pride, the intolerance of a profession which frequently remarks its own liberality.

It may be said in reply that ridicule is ever an appropriate answer to absurdity, but where, as in this case, the sentiments were first announced by eminent fathers in medicine, and bear the unanimous indorsements of the American Medical Association and the New York State Medical Society, where the same principles are to be found in the decisions of the highest courts of the land, would it not be in better form to show cause why such sentiments no longer merit serious consideration?

Again, the highest professional society in this State, the Medical Society of the State of New York, has for the past two years been under the control and direction of men holding this view of the necessity of recognizing the relations of the homœopath to the law. Does not the ignorance of men so conspicuously placed merit an attempt at enlightenment?

It is said that the new code is a well-nigh everlasting disgrace to the profession. In view of such great danger to all, is it not worth while to reason with its supporters, to show them the error of their views? In case the position is so plainly untenable, it would require much less space than that of six articles and a conclusion to show, step by step, that untenability.

To be sure, it is not always easy to be considerate and patient with those whose views oppose our own, particularly when the new view carries a reflection upon the wisdom of a long-established doctrine and usage; but are we not members of the same profession? are we not still eligible to consultation? do we not give the grounds for our views, and

can we not agree that the premises upon which a conclusion is based are more important than any man's conclusion?

I trust the author of the articles on "Medical Ethics and Etiquette" will pardon some remarks, offered in a spirit of inquiry, upon the positions advanced by him. At page 455 ("Concluding Remarks") he says: "The question, therefore, now at issue in the State of New York is simply this: Shall consultations with homœopathic practitioners be permitted? . . . As regards the legal status of homœopathic practitioners, this has nothing to do with the question. It would be strange, indeed, if a State Legislature should undertake to regulate the professional ethics of physicians. This has never been attempted, and it probably never will be."

One's first impulse upon reading these declarations is to adopt the method of its author, just criticised, and to generalize; but, instead of this, I will try and set forth reasons why the assertions here given are not competent guides in this crisis.

I have tried, and in vain, to put myself in the place of the author of these lines, for the purpose of apprehending what was in his mind when he wrote that the Legislature never had undertaken, and never would undertake, to regulate the ethics of the medical profession of this State.

The only approach to a theory which I can reach is, that, to the author, medical ethics means something as delicate, as immaterial, as unsubstantial, and as impracticable as the vagaries of the fashions of the ultra-polite. That its nearest approach to practical realization might be seen in the rule determining the order in which the members of a consultation should deliver their opinions, or the order in which, with several present, they should leave the room. Matters of this moment the Legislature probably has not attempted, and will not attempt, to regulate.

But can it be possible the author means what he says when he excludes from the operation and control of the law all those matters embraced by the code of ethics he has taken so much space to explain and illustrate?

In case this is his meaning, the following will at least cast doubts upon its validity:

The code of ethics exerts its influence upon the medical profession by virtue of being a by-law of some society of which the individuals are members, and that society is not the American Medical Association, not even a State medical society, but is much smaller and more localized than these, and in this State is the county medical society. The quotations above cited make the most remarkable assertion that the Legislature never has attempted, and probably never will attempt, to regulate the by-laws of county medical societies.

Chapter 138, laws of 1806, the same being the act incorporating State and county medical societies, provides "That it shall and may be lawful, for the respective societies to be established by virtue of this act, to make such by-laws, rules, and regulations, relative to the affairs, concerns, and property of said societies, relative to the admission and the expulsion of members, relative to such donations or contributions, as they or a majority of the members, at their annual meetings, may think fit and proper.

"*Provided*, That such by-laws, rules, and regulations, made by the Society of the State of New York, be not contrary to nor inconsistent with the constitution and by-laws of this State or of the United States, and that the by-laws, rules, and regulations of the respective counties shall not be repugnant to the by-laws, rules, and regulations of the Medical Society of the State of New York, nor contrary to nor inconsistent with the constitution and laws of this State or of the United States."

This attempt on the part of the Legislature to regulate the by-laws, rules, and regulations, including the medical ethics of the profession, has been construed by the courts at various times, the following instances having fallen under my observation :

The Medical Society of the County of Erie adopted a resolution declaring that it was a violation of medical ethics to undertake to do a certain work for less than a fixed price. A member, one Gray, undertook the work for less than the sum named, and, this coming to the notice of the society, he was promptly expelled therefrom. Litigation followed, the members were roundly taxed for the incident expenses, and in the end had the pleasure of learning this lesson from the final decision of the courts, which can be seen in Barbour, vol. xxiv, page 570.

The Court held: "A by-law must not be at variance with the general law of the land; it must be reasonable, and adapted to the purposes of the corporation. The regulation in question was unauthorized. It was unreasonable. It was against public policy and the law. The disfranchisement of the relator was unauthorized and illegal. It follows that he must be restored or recognized as a member of the medical society, and be permitted, without molestation, to enjoy all the rights and privileges of a member."

A few years later the same society undertook to exclude one Bartlett for an alleged violation of a regulation of the society, its code of ethics—that now held by the American Medical Association. After another long and expensive litigation, the society again learned, in the most positive manner, that the law could construe the said code, and that it could, would, and did fix the limits of its operations. This pertinent ruling can be found in the New York Reports, vol. xxxii, page 187.

These instances occurred in my own county society, and bear the most positive testimony to the fact that the law recognizes, and, if need be, regulates, the ethics of physicians.

It is worthy of remark that in both of these cases the dominant feeling in the society was quite in accord with that expressed in the quotations under discussion, and, therefore, perfectly in accord with most of the declamation which has been launched at the supporters of our present code; and it may be worth remembering that the process of schooling experienced by the Erie County Society, which seemed necessary to the unlearning of this error, was at once irritating, humiliating, and expensive.

The writer is quite positive that, in case the profession at large were to pass such a pupilage, they would in the end easily agree that it would have been by far both more

creditable and more satisfactory to have discovered and corrected the error of the position, even if that error had been of *thirty-six years' standing*.

The most concise, exhaustive, and pertinent statement of the relations of the individual to the profession of medicine, the relations of the profession to the people, that has fallen under my eye is to be found in the decision of Aiken vs. The State Board of Health of Illinois. This case was brought to test the constitutionality of the Medical Practice Act of that State. The following quotations are from the decision of the Circuit Court of Cook County, which decision was affirmed by the Court of Appeals:

"What is a license to practice a profession? Is it a constitutional privilege? Is it a property? Is it a contract? In a certain sense, it is true that every man has a natural right to follow out the bent of his inclination and be a clergyman, a lawyer, a doctor, a scavenger, a peddler, an auctioneer, just as he may choose. *But it is not true that a man can practice any of these professions or occupations except he does it upon such terms as the law imposes, and the law can impose just such terms upon any of these professions or employments as the legislators in their discretion deem most for the interest of the community. If, then, a man has a natural right to be a lawyer or a doctor, he possesses that right subject to every restriction which the law may have created before, or which it may create subsequent to his entrance upon the given profession. In no sense can the words 'property' and 'contract' be applied to the right to practice medicine.*"

By virtue of this right to impose terms and restrictions upon the individual members of the profession, the people, through their representatives in the Legislature, undertake to regulate even the professional ethics of physicians. Not only is this the case, but, more than this, the Legislature expressly declares that the privileges granted the profession to-day may be forfeited and taken away to-morrow, so that one can in truth say that *the Legislature regulates the professional ethics of physicians from day to day*. In making this assertion, the writer has in mind practical ethics—ethical provisions for the violation of which a physician would be liable to discipline, rather than matters of fashion or etiquette.

The writer would not presume to come before the profession with even a suggestion upon this subject were it not for the belief, as he has before stated, that the code controversy exists because of the different views held by medical men upon the nature of the rights of physicians. When we can have some approach to uniformity of belief as to "what is a license to practice medicine," we shall have made quite an advance toward the greatly to be desired unanimity of feeling upon the question of the codes.

There would seem to be upon the part of many of our members a feeling of irritation at the mention of the relation of the medical profession to the law, and a desire to repudiate any such relation, as if we were thereby humiliated. I know of no better remedy for this undue sensitiveness than to dwell upon the grand words of Bishop Hooker, with which I would close:

"Of Law no less can be acknowledged than that her seat

is the bosom of God, her voice the harmony of the world. All things in heaven and earth do her homage, the very least as feeling her care, the greatest as not exempt from her power."

Book Notices.

A Manual of Obstetrics. By A. F. A. KING, M. D., Professor of Obstetrics and Diseases of Women and Children in the Medical Department of the Columbian University, Washington, D. C., etc. Philadelphia: Henry C. Lea's Son & Co., 1882. Pp. xx-25 to 325, inclusive.

IN this work, which comprehends the physiology and pathology of pregnancy, the puerperal diseases, and some medico-legal matters connected with the function of child-bearing, together with what constitutes practical obstetrics in a strict sense, it must be confessed that the author has succeeded in avoiding in great measure the shortcomings that are apt to creep into a condensed text-book. While not professing to be more than a manual, and therefore lacking the argumentative element that is needed to impart a thorough understanding of our present knowledge of obstetrics, the book presents the leading points of that art in a plain and intelligible manner, and, so far as we have observed, with accuracy. It ought, therefore, to take a prominent place among the works that are used for hasty reference.

The Change of Life in Health and Disease. A Clinical Treatise on the Diseases of the Ganglionic Nervous System incidental to Women at the Decline of Life. By EDWARD JOHN TILT, M. D., Past President of the Obstetrical Society of London. Fourth edition. Philadelphia: P. Blakiston, Son & Co., 1882. Pp. 184. [Price, paper, 75c.; cloth, \$1.25.]

IN the dearth of literature bearing upon the physiology and pathology of the menopause, Dr. Tilt's work is of considerable value as embodying a collection of odd facts and deductions connected with those subjects. The "change of life" is certainly deserving of more study at the hands of the profession than it has received, and the author of this book will have deserved well if it succeeds in leading to such a study.

Dysmenorrhæa: its Pathology and Treatment. By HEYWOOD SMITH, M. A., M. D. Oxon., Physician to the Hospital for Women and to the British Lying-in Hospital, etc. London: J. & A. Churchill, 1881. Pp. x-122.

DR. SMITH considers the various morbid conditions that are supposed to give rise to dysmenorrhæa, comprising affections of the ovary, of the oviduct, of the pelvic peritonæum and cellular tissue, and of the uterus, together with certain diathetic conditions. This is undoubtedly the correct way to study dysmenorrhæa, and we trust that it will some time lead us to a better knowledge of its pathology than we now have.

As regards treatment, we can not say that the author has put forward anything specially noteworthy. Rather contrary to the general tendency of opinion at the present day, he still regards Sims's operation as the measure best calculated to bring about a cure in cases of congenital anteversion.

He thus speaks of oophorectomy for ovarian inflammatory dysmenorrhæa: "I consider the cases most favorable for operation those in which there is severe dysmenorrhæa undermining the health of body and mind, where the pain is due to extreme congestion of the ovaries, and more so in those cases where

prolonged congestion or inflammation . . . has led to that form of disease termed cirrhosis, when, as a rule, the ovaries are non-adherent."

Some attention is devoted to vicarious menstruation and to hysteria, but of rather a fragmentary sort. Indeed, all through, the book lacks thoroughness in matters of detail. Nevertheless, it strikes us as a contribution of considerable value.

Contributions to Practical Gynæcology. By S. JAMES DONALDSON, M. D., Fellow of the New York Medico-Chirurgical Society, etc. New York, 1882. Pp. 134. [From J. H. Vail & Co.]

DR. DONALDSON's brochure deals chiefly with uterine flexions and with dysmenorrhæa. We find many evidences of good sense in its pages, but also a proneness to a degree of confidence in pessaries that we can not share, and a decided fondness for particular instruments of the author's own invention.

BOOKS AND PAMPHLETS RECEIVED.

Deep Breathing as a Means of Promoting the Art of Song, and of Curing Weaknesses and Affections of the Throat and Lungs, especially Consumption. By Sophia Marquise A. Ciccolina. Illustrated. Translated from the German by Edgar S. Werner. New York: M. L. Holbrook & Co. Pp. 48.

Lectures on Medical Nursing, delivered in the Royal Infirmary, Glasgow. By J. Wallace Anderson, M. D., Lecturer on Medicine, Royal Infirmary Medical School, etc. Second edition. New York: Macmillan & Co., 1883. Pp. x-224. [Price, \$1.]

La Pellagra a Desio (Provincia di Milano). Noterella del Dottor Vittorio Cavagnis, Medico Condotta Locale. Milano: Fratelli Rechiedei, 1883. [Reprint from the "Gazzetta Medica Italiana-Lombardia."]

Alcohol as a Food, a Medicine, a Poison, and as a Luxury. By George C. Pitzer, M. D., Professor of the Theory and Practice of Medicine in the American Medical College, St. Louis, etc. St. Louis, 1883. Pp. 46 to 61, inclusive. [Price, 25c.]

Inquiries into Human Faculty and its Development. By Francis Galton, F. R. S., author of "Hereditary Genius," etc. New York: Macmillan & Co., 1883. Pp. xii-387. [Price, \$3.]

Lectures on Cataract: its Causes, Varieties, and Treatment. Being Six Lectures delivered at the Westminster Hospital. By George Cowell, F. R. C. S., Senior Surgeon to the Westminster Hospital, etc. With illustrations. London: Macmillan & Co., 1883. Pp. xv-126. [Price, \$1.50.]

Report on the Pharmacopœias of all Nations. By Dr. James M. Flint, U. S. N. Washington: Government Printing Office, 1883. Pp. 28. [Extracted from the Report of the Surgeon-General of the United States Navy for 1882.]

Cases of Mushroom Poisoning. By James D. Trask, M. D., of Astoria, N. Y. [Reprint from the "American Journal of the Medical Sciences."]

The Microscope and its Revelations. By William B. Carpenter, C. B., M. D., LL. D., etc. Sixth edition, illustrated by twenty-six plates and five hundred wood engravings. Volume II. New York: William Wood & Co., 1883. Pp. iv-354. [Wood's Library of Standard Medical Authors.]

Hand-Book for Friendly Visitors among the Poor. Compiled and arranged by the Charity Organization Society of the City of New York. New York: G. P. Putnam's Sons, 1883. Pp. iv-88.

The Official Correspondence between Surgeon-General William A. Hammond, U. S. A., and the Adjutant-General of the Army, relative to the Founding of the Army Medical Museum, etc. New York: D. Appleton & Co. Pp. 8.

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THE MEETING AT CLEVELAND.

DURING the early years of its activity the American Medical Association, although small in numbers, was perhaps more truly representative of the profession at its best than it has been since its membership has swollen to the proportions that its peculiar mode of growth could not fail to bring about. For this reason, probably, and because membership has consequently been coming to be less of a distinction year by year, its annual meetings have progressively been viewed with greater interest by the many, while the select few, whose peers at first made up the organization, have felt continually more and more conscious that whatever part they might take in the proceedings would be inconspicuous and perfunctory, and that attendance was becoming to them more of a duty and less of a pleasure.

The element first mentioned—the rank and file of the profession—naturally find themselves more closely drawn to the association year by year, for the chances are continually multiplying by which any one of them who has deserved well of his fellows may find himself invested with the privileges and the dignity that attend membership. Once a delegate, always a member, is doubtless a consideration that encourages the ambition of thousands of toiling physicians throughout the land, and sweetens their daily life under the load of care and vexation with which it is their lot to struggle; for, large and democratic as the association has become, it still casts a certain halo of distinction about the great majority of those who succeed in placing their names on its roll. Who shall say that, in this respect at least, it is not a blessing to the great mass of us?

On the other hand, the few who stand more and more aloof from it as succeeding years add to their own individual luster, while they dim any reflected glory that might in the past have come to them from the association, dwell upon what they consider its decadence, alleging that its scientific work is below the level of what is accomplished by local societies, that it gives the palm not so readily to him who has deserved it as to him who represents a section not before honored, and that it is annually becoming an easier and a more tempting prey to the unscrupulous manipulator. It is to be feared that these gentlemen do not sufficiently realize the fact that, were they to attend the meetings more regularly, and to take a little more pains to make themselves heard in the councils of the association, what they now account its shortcomings might be mended most materially.

In saying this we do not conceal from ourselves that the association has many disadvantages to contend with that seem insurmountable. First of all, the vast territorial extent of our country, favorable as it is from some points of view, is un-

doubtedly in one respect a drawback to that ideal status that we would fain see reached by our national organization. It must ever be the case that the large cities will be the homes of the greater number of those who are most fitted to lend *éclat* to such meetings. It is true at present, and probably will be for many years to come, that most of those cities are on the Atlantic seaboard, whereas the association is likely to meet anywhere from five hundred to three thousand miles away. The idea is cherished by many of those who have the welfare of the association most at heart that it is quite feasible for it to tread close upon the heels of its prototype, the British Medical Association. But our British brethren are happy in their "right little, tight little isle"—from London, which, from a literary and scientific point of view, is practically all England, a busy man may make the journey to whatever town the British association may select for its meeting, read his paper, the outcome of a year of reflection, and get back home again, almost without deranging his consultation appointments. For one of our metropolitan practitioners to take part in a meeting of the American Medical Association means, however, the necessary sacrifice of the better part of a week.

We are far from meaning to say that city men are all in all to a national scientific body. Indeed, that is notoriously not the case as regards associations devoted to pure science; but, when we consider that medicine has an important aspect that is purely commercial, we can only repeat that the medical magistrate finds his natural habitat in the great centers of population, of trade, and of wealth. While we confess that it would be a hardship for our southern and western brethren to make their pilgrimage always to Boston, New York, Philadelphia, Baltimore, or Washington, it may eventually seem to the American Medical Association, as it already has seemed to some of the special national societies, better on the whole to decide that the meetings shall always be held in one of the great Atlantic towns. Nevertheless, this year the attractions of Cleveland, if nothing else, are likely to bring a memorable meeting to pass.

THE ETHICAL QUESTION AND THE AMERICAN MEDICAL ASSOCIATION.

It is not easy to see how the question of the expediency of modifying the code of ethics of the American Medical Association can fail to come up, in one form or another, at the forthcoming meeting of that body. It is certain, however, that it will not be brought up at the instigation or with the consent of the party that has secured the adoption and confirmation of the present code of the Medical Society of the State of New York, for that party has no expectation that its success in its own State will materially affect the position taken by the great majority of those who are to assemble at Cleveland, and it is not willing to play the part of a suppliant. It trusts rather to the logic of events, and is content to abide its time; satisfied that it can look to no concession from the national association, it is firm in the conviction that it stands in no need of such concession. Indeed, it seems not improbable that it would rather dislike to find itself in a position that public opinion would regard as calling

for counter-compromise on its own part, for such a recession from the firm stand it has maintained would involve what it could not but consider as an abandonment of an advantage already gained. Successful revolutionists do not sue for terms; the cry for peace is wont to come from those who are getting the worst of it.

And yet, as our contributor, Dr. Piffard, very properly insists, the attitude of the profession in the State of New York is not that of "rebellion" against constituted authority, for the authority it never recognized. On the contrary, it is one of voluntary renunciation—temporary, it is hoped—of certain present and material advantages for the sake of the ultimate triumph of a principle. New York acts not with an overweening idea of her own importance, but with a full appreciation that, in taking the stand she has taken, she entered upon a course of which every unpleasant consequence was foreseen and accepted as the necessary concomitant of the move she believed herself to be making in the interest of the whole American profession, and with confidence that the purity of her motives and the wisdom of her action will be acknowledged in the end. This we judge to be the attitude of the new-code party.

As regards the old-code party in the State of New York, the case is different. This party is on the defensive, and, consequently, burdened with the inertia that always accompanies a quasi-negative position. Notwithstanding its pronounced, not to say frantic, utterances, the rank and file lack enthusiasm. To attain a result far short of creating enthusiasm—that, namely, of securing a half-hearted adhesion to the cause, nothing more than nominal at present, and to be raised to the pitch of reality by contingent events if at all—the promoters of the movement now going on in the State of New York in favor of the restoration of the old code have found it necessary to induce many to lend countenance to their contention by assurances that they did not indeed regard the old code as altogether what it should be, and that they would use their best endeavors to secure its speedy modification. To be explicit, it is well known that many of those who have signed the declaration stating that they were opposed to any alteration of the code of ethics of the American Medical Association that did not emanate from that body, have so signed only on the earnest solicitation of canvassers, coupled with the pledge that steps would be taken as soon as practicable to bring the old code into consonance with the views of these signers. Many who signed under those representations have declared themselves really opposed to all codes, but state that, being conservatives by nature, they consented to attach their names to the declaration in question because, after much deliberation, they thought it best that any change in our ethical regulations should be uniform throughout the whole country, and therefore should come from the only organization that has any pretension to represent the American profession as a whole.

Such being the case, the promoters of the movement in favor of the restoration of the old code in this State seem bound not only by honor, but also by interest, to do their best to achieve

a tangible modification of that code by the American Medical Association—by interest, not to weaken the forces of their opponents, for that they can not hope to do, but merely to retain their own nominal following. Moreover, no mere *pro forma* display will satisfy the latter; they want not only an earnest but a successful effort, in default of which they will transfer their allegiance.

This brings us to the question: Is such successful effort possible? We take it for granted that the Cleveland meeting can not definitively enact any change in the code, for such action, being of the nature of an amendment to the by-laws, must lie over for a year. Should the association see fit to put such a proposition *en train*, however, the meeting of 1884 would be in a position to take final action in the light of whatever may transpire at Albany next February. But it does not seem likely to us that this course will be pursued, in case the question comes up. Several State delegations are under instructions to vote down all changes of the code that may be proposed, and the sentiment of many State societies that have not instructed their delegates is so obviously and radically adverse to any concession that it is almost certain that no change can be put in the way of accomplishment. Judging from all the data at our command, then, no proposition looking to a substantial modification of the association's code is likely to be urged with any warmth, or, if so urged, is destined to meet with any more favorable action than a reference to the judicial council—which means its strangulation.

THE STUDY OF PHYSIOLOGY IN ACADEMICAL COURSES.

In a recent number of the "Educational Times" we find a paper, read before the College of Preceptors, by Dr. Allchin, of the Westminster Hospital, London, who takes decided ground against the utility of physiology as a subject of elementary education. Dr. Allchin states that for nearly twenty years past he has been engaged in the study and teaching of physiology, and as an examiner in that branch. The result of his observation has been that, as a general thing, pupils who make physiology a part of their academic course learn at the most but a few salient and detached facts, that what they learn is so fragmentary as to be of no practical service to them in their subsequent career, and that, making no approach to a grasping of the science of the subject, their minds are not appreciably trained by that study, as they are by some others that are of no particular service as mere acquirements. In view of these considerations, Dr. Allchin is emphatically of the opinion that the study of physiology under such circumstances is worse than useless.

It is the besetting error of teachers of special branches to magnify the importance of those branches and set them above all others whatsoever, insisting, in season and out of season, upon the necessity of their study by all classes of pupils, and for all sorts of reasons. Dr. Allchin is certainly to be credited with having risen above the propensity in question, and we may say, moreover, that his paper is an exceedingly able presentment of the subject from the point of view taken. Nevertheless, we doubt if the conclusions are quite warranted by the

facts. It is the common experience of teachers that very few of their pupils seem to grasp a difficult subject, and yet it is a matter of every-day observation that men who in their school-days seemed to get no discernible insight into a particular study give practical evidence of having, after all, imbibed a very fair idea of it, as shown not only by the memory of disjointed facts, but also by the marked facility with which, on taking the subject up anew, they master it, although in the mean time they may have given it no attention whatever. In such cases the assimilation of knowledge, if we may use the expression, is a matter of time, and goes on unconsciously, remaining latent, so to speak, and utterly eluding the examiner's art.

Then, again, in the matter of physiological study considered as a means of developing the mental powers, such an effect may not be apparent at once, but surely something must be accomplished by it in that direction, for it appeals to the ingenuity, the speculative tendency, and the judgment, we should say, as few other studies do. As with any other, much depends, of course, on the teacher; but, given the same intelligence on the part of the pupils and an equal power of imparting knowledge on the part of the teacher, it is not easy to see why the study of physiology should prove less valuable in an academical course than that of any of the other branches that are commonly pursued at the same time.

THE PRESIDENCY OF THE AMERICAN MEDICAL ASSOCIATION.

It has been thought for some time past that Dr. Austin Flint would be chosen president of the association at its approaching meeting, and the proposition has now been formally made by one of our contemporaries, the "Louisville Medical News." It is not alone in New York that such a choice would be regarded as a graceful act on the part of the association, but throughout the whole country. This we say not merely because Dr. Flint's services to medicine are everywhere held in high esteem, but particularly because at the present time his accession to the office in question would, we think, have a pacifying influence on ethical extremists of either side.

Proceedings of Societies.

AMERICAN LARYNGOLOGICAL ASSOCIATION.

(Concluded from page 585.)

Afternoon Session—First Day.

THE DESTRUCTION OF NASAL POLYPI BY CHROMIC ACID was the title of a paper read by Dr. FRANK DONALDSON, of Baltimore. The point to be aimed at in the treatment of polypi of the nasal passages was prompt and rapid removal, with a minimum degree of pain and loss of blood, and in a manner to prevent their recurrence. The author then spoke of the advantages and the disadvantages pertaining to the three methods of treatment commonly employed—that by the forceps, by the galvanic cautery, and by the use of escharotics. According to his experience, the conditions before mentioned were best fulfilled by an application of fine crystals of chromic acid, or of a solution

of a hundred grains to the ounce, first moistening the mucous membrane with a lead lotion. Chromic acid was a most powerful escharotic, and also disinfectant. When instruments were used, it was of advantage first to apply the acid to the base of the growth and lessen the size of the pedicle; or afterward to the stump, destroying it completely.

Dr. W. O. JARVIS, of New York, thought that usually the development of nasal polypi near the seat of a former operation took place not from the roots of the polypi that had been removed, but from embryonic structure upon the mucous membrane in the immediate neighborhood which now had room for growth. The application of chromic acid after removal of the large tumor by the wire would prevent this.

Dr. W. F. DUNCAN, of New York, thought that recurrence of the polypus could be guarded against only by removal of a portion of the turbinated bone from which it sprung. In his experience there had been a recurrence in about eighty per cent. of the cases within from one to five years after the growth had been removed by other methods.

Dr. CARL SEILER, of Philadelphia, had found that polypi of the gelatinoid variety were a localized hypertrophy of the mucous membrane which had undergone myxomatous degeneration. In their removal he preferred the wire, which, when tightened slowly, gave rise to less pain than did escharotics. A recurrence did not take place if all the growths were removed.

Dr. W. H. DALY, of Pittsburg, had used chromic acid with satisfaction, but he had found one escharotic about as good as another.

CHOREA LARYNGIS.—Dr. FREDERICK I. KNIGHT, of Boston, read a paper on this subject, in which he spoke of three varieties, viz.: That in which the adductors of the larynx were involved, together with the expiratory muscles, giving rise to paroxysms of coughing, and a barking or crowing sound; second, that in which the muscles of the larynx alone were involved; third, but not properly belonging under this head, that in which the expiratory muscles alone were involved. The author mentioned a case which, so far as he was aware, was unique, in which the laryngeal muscles alone were involved, and a clicking sound, heard by himself and by the patient, was produced, apparently, by the rhythmical contraction of the vocal cords. Arsenic and quinine had had but little effect upon the spasm.

Dr. S. W. LANGMAID, of Boston, had seen the case with Dr. Knight, and spoke of the remarkable rhythmical movement of the vocal cords alluded to.

Dr. E. C. MORGAN, of Washington, mentioned the case of a girl which fell under the class of cases in which both the laryngeal and the expiratory muscles were affected, and the crowing cough could be heard the distance of a square. He had obtained most benefit from Fowler's solution and monobromated camphor.

Dr. E. F. INGALS, of Chicago, referred to a case in which there were peculiar movements of the levator palati muscle, each contraction of the muscle being accompanied by a clicking sound.

Dr. LANGMAID remarked further, with regard to treatment, that in one case falling under the first division, which he believed had been excited by the influence of harsh methods of the music teacher upon the nervous system of the patient, the barking sound was found always to be preceded by opening the mouth. The girl carried out his instructions to close the mouth immediately when an attack was about to occur, and it was thus aborted.

THE TREATMENT OF LARYNGEAL PHTHISIS.—Dr. E. FLETCHER INGALS, of Chicago, read a paper with this title, in which he said there were three prominent indications for treatment: First, to relieve pain; second, if possible, to cure the disease;

third, failing in this, to so modify the course of the affection as to prolong the patient's life. Pain could generally be relieved by topical applications, even though internal medication proved of little avail. The second object might sometimes be attained by topical and internal medication combined. Thirdly, life might at least be prolonged by relieving pain and enabling the patient to swallow, and preventing failure from lack of nutrition. Cases in practice were cited. He had derived great benefit from a topical application of a lotion composed of morphine, carbolic acid, tannin, glycerin, and water; also from the use of eucalyptol. Topical applications of iodoform had not proved of much benefit in his hands. Constitutional treatment and change of climate were referred to.

THE HEALING OF ULCERS IN LARYNGEAL PHTHISIS.—Dr. WILLIAM C. JARVIS, of New York, read a paper with this title. The author gave the history of a case of phthisical ulceration of the larynx in which the right vocal cord was almost entirely eroded, and in which there were all the peculiar signs of laryngeal phthisis. A well-known expert examined the patient, and stated that there were undoubted evidences of pulmonary phthisis. The patient was unable to swallow, and her condition had become very pitiable indeed. A very unfavorable prognosis was given. The treatment was general and local. Directions with regard to the taking of food, remedies for the relief of cough, pain, sleeplessness, and nervousness were prescribed, and iodoform was applied to the ulcer. The patient changed climate. Much to his surprise, on her return he saw a woman apparently well, and she claimed to be so, for all the symptoms from which she had so severely suffered had disappeared, and she had gained in flesh. The ulcer had healed. There were still signs of pulmonary phthisis. Dr. Jarvis also showed an instrument which he had invented for the application of medicated powders to laryngeal ulcers.

Dr. JOHNSTON, of Baltimore, referred to a case of laryngeal phthisis which he had been enabled to follow from before the time when signs of pulmonary phthisis could be detected. The laryngeal ulcers in that case healed under treatment.

Dr. DONALDSON, of Baltimore, thought that much could be done in these cases toward prolonging the life of the patient by feeding through the stomach-pump.

Dr. F. H. BOSWORTH, of New York, thought that many cases of ulcer of laryngeal phthisis which had been reported as having been cured were not such in fact, but were of a catarrhal origin, and he pointed out the differential signs between the two varieties. He remarked that the laryngeal ulcer did not cicatrize; the morbid growth simply stopped, and the surface of the ulcer took on a glazed appearance.

The paper was further discussed by Dr. Cohen, Dr. Knight, Dr. Asch, Dr. Major, Dr. Ingals, and Dr. Jarvis.

PARESIS OF THE CONSTRICTOR MUSCLES OF THE PHARYNX, SIMULATING SPASMODIC STRICTURE OF THE OESOPHAGUS, WITH REPORT OF CASES.—Dr. BOSWORTH read a paper with this title, in which he stated that the condition referred to was purely myopathic in character. In the first case mentioned, no reflex excitability of the pharynx could be called forth; in the remaining cases the paralysis was not complete, but the patients in most instances were unable to take solid foods. The treatment in each instance was by rest, the interdiction of solid food, the use of strychnine, fresh air, and bathing, and in all but the first case it proved successful; the patients were dismissed cured. Dr. Bosworth then made some remarks upon the fact that there is a greater tendency in muscles which are most overworked first to break down. This was more noticeable in muscles covered by mucous membrane, the frequent seat of inflammation.

The paper was discussed by Dr. Cohen, Dr. Langmaid, and Dr. Knight.

Second Day—Morning Session.

ON PHOTOGRAPHING THE LARYNX.—Dr. THOMAS R. FRENCH, of Brooklyn, read a paper on this subject. The paper was a description of improvements upon the method of photographing the larynx, described at the last session. The results were summed up as follows: First, better photographs had been taken with the stationary apparatus than those of last year; second, a camera had been arranged to be held in the hand; third, the photographs were taken instantaneously by dropping a shutter; fourth, the parts reflected in the mirror were alone exposed; fifth, as the apparatus was so small, and exposure was made instantaneously, if desirable, photographs could be taken without the patient being aware of the object of the procedure; sixth, several diseased conditions of the larynx had been photographed; seventh, copies of the rhinoscopic image had been photographed, so far as he was aware, for the first time.

CONGENITAL TUMOR OF THE LARYNX, WITH A REPORT OF CASES.—The paper was written by Dr. H. A. JOHNSON, of Chicago, and gave the history of five cases of papillomatous tumors of the larynx, in one of which the growth was coughed up spontaneously; in three tracheotomy was performed by himself or by other physicians, who also saw the patients, in one instance death taking place within twenty-four hours after the operation, and in the other two from pneumonia developing subsequently to the operation. In each case the symptoms had dated back to infancy, indicating that the tumor was congenital.

Dr. KNIGHT thought it was better to let the growth alone until the child was old enough to allow of its removal by the natural passages, if in the mean time it were not expelled spontaneously. If thyrotomy were performed, the voice would be permanently injured; and the growth would probably recur.

Dr. J. SOLIS COHEN, of Philadelphia, thought that the liability of the cicatrix, consequent upon the operation, to interfere with proper development at puberty constituted a serious objection to surgical interference.

The paper was further discussed by Dr. Roe, of Rochester; Dr. Major, of Montreal; and Dr. Duncan, of New York, who narrated cases of congenital tumors of the larynx.

LARYNGEAL PARALYSIS FROM ANEURYSM.—A paper on this subject, by Dr. WILLIAM PORTER, of St. Louis, was read by title.

Afternoon Session.

REFLEX PHENOMENA DUE TO NASAL DISEASE, by Dr. LOUIS ELSBERG, of New York.—The author's attention had been called to the fact that serious reflex phenomena might be excited by nasal disease as long ago as twenty years, when he cured a very severe case of chorea simply by treatment directed to nasal catarrh. Among the diseases falling under this class of which he had seen examples were melancholia, chorea, epilepsy, neuralgia, headache, digestive disturbances, reflex troubles pertaining to the upper air passages, uterine disorders and affections of the genito-urinary mucous membrane, disorders of smell and taste, various alterations in the speaking and singing voice, bronchial asthma, etc. He called attention to the fact that diffuse external redness of the nose was often dependent upon chronic nasal catarrh. He mentioned the case of a man suffering from chronic nasal catarrh who was always seized with severe sneezing during coitus. The author concluded his paper by quoting the remarks of Dr. A. Jacobi upon this subject, made at a meeting of the New York Obstetrical Society, 1883. [See the April 7th number of this journal.]

Dr. J. N. MACKENZIE, of Baltimore, referred to a paper which he read before one of the Baltimore medical societies, in which, from experimental and clinical observation, he reached the fol-

lowing conclusions: First, that in the nose, as well as in the pharynx, there existed a definite circumscribed area, irritation of which was capable of producing a series of reflex phenomena, but especially cough. This area corresponded, in all probability, to that portion of the mucous membrane which covered the posterior cavernosum. Second, reflex phenomena were only produced when this area was irritated, all parts of which, however, were not equally sensitive. The susceptibility to reflex cough also varied greatly in different persons.

Dr. J. O. ROE, of Rochester, believed that most cases of asthma, especially hay fever, were due to chronic disease of the nose.

Dr. SEILER, of Philadelphia, mentioned the case of a girl taken suddenly with acute coryza, which brought on a severe primary attack of chorea. The choreic symptoms disappeared with the coryza. He also spoke of a case of profuse watery discharge from the nose, coming on suddenly and lasting for about three quarters of an hour, and attended by headache.

Dr. BOSWORTH thought the last case referred to by Dr. Seiler was purely nervous in character, but that it should not be classed as a case of coryza. The cases were exceedingly rare, there being but about six on record. The fluid, as he had demonstrated by microscopical and chemical examination, was almost pure water. He referred to some cases of distressing spasm of the glottis due to atrophic rhinitis, and relieved by moisture with salt water. He did not believe that chronic thickening of the nasal mucous membrane or that nasal polypi occurred in children, as stated in the quotation from Dr. Jacobi; the condition seen was glandular tissue.

SMELL, HYGIENICALLY AND MEDICO-LEGALLY CONSIDERED.—This paper was read by Dr. CLINTON WAGNER, of New York, who gave a definition for odor and smell, spoke of the high state of development of the sense of smell in certain of the lower animals, and in certain persons from cultivation, especially in those deaf and dumb, and those engaged in sampling cigars, flour, etc.; of the conditions in which it might aid in the preservation of the health by the detection of odors arising from unhealthful conditions, and of aid to the physician in diagnosis. Some of the diseases which gave forth a peculiar odor were the following: Alcoholic coma, mercurial pytalism, exanthematous and other febrile diseases, the lying-in state, stercoraceous vomiting, etc. One author stated that the habitual masturbator had the odor of liquor amnii.

Dr. BEVERLEY ROBINSON, of New York, called attention to the importance of making a distinction between disinfection and deodorization.

Dr. C. W. CHAMBERLAIN, of Hartford, mentioned an instance in which all the occupants of a house, whose sleeping apartments were exposed to the odors from a certain factory, suffered from a spasmodic affection of the larynx.

Dr. S. H. CHAPMAN, of New Haven, remarked that odor in itself was of no importance to the physician unless it also carried the germs of disease. The idea was best expressed by the German doctor when an old lady entered his office and said: "Doctor, I am afraid I smell." "No," he said, "I smell; you stink."

ASYMMETRY OF THE NASAL CHAMBERS.—Dr. HARRISON ALLEN, of Philadelphia, drew attention to the existence of this condition in some cases, and exhibited the skull of an idiot who was an example thereof. Asymmetry of the corresponding parietal bone existed in many of the cases.

ON THE RESULTS OF THE TREATMENT OF NASO-PHARYNGEAL FIBROMA, WITH DEMONSTRATION OF SUCCESSFUL CASES, TOGETHER WITH A TABLE OF SEVENTY-FOUR OPERATIONS BY DIFFERENT SURGEONS.—This paper was read by Dr. RUFUS P. LINCOLN, of New York. He believed that there was a method for the removal of

these tumors which could be more safely employed than that which was usually adopted by the general surgeon. He did not, however, advocate the method which he had employed with such excellent results to the exclusion of all other methods. A loop of platinum wire was passed through the nostril behind the tumor, the patient was etherized, the battery was attached, the pedicle severed, and the tumor removed through the mouth. The following was the tabulated list:

The operations were performed upon fifty-eight patients, including three of his own cases. There were 74 operations in all, and were tabulated as follows: Of the patients, 46 were males, 8 were females, and in 4 the sex was not stated. Age: Under 8 years of age, 2; between 14 and 23, 31; between 23 and 30, 4; between 33 and 42, 6; between 43 and 52, 5; one patient was 54 years of age, another 55, and the age was not stated in 8 cases.

Of the operations involving section of the bones of the face, there were 39 performed upon 28 patients. The number of recurrences which took place within a year was 14. The number of cases reported under observation without recurrence, 4. The number of cases in which there was no record subsequent to the operation, 13. The number of deaths as a result or attributable to the operation itself, 8. In 3 other cases the operation nearly proved fatal.

Removal by knife, scissors, forceps, etc., 7 operations performed upon 7 patients. Number of recurrences, none. Number of cases reported under observation one year or more subsequent to the operation without recurrence, 6. Number of cases in which there was no record subsequent to the operation, 5.

Removal by the *écraseur*-ligature, 12 operations performed upon 11 patients. Recurrences within one year, 6. Under observation for one year or more without recurrence, 4. No record subsequent to the operation, 2.

Treatment by injections, cauterization, etc. Number of cases treated, 2. Recurrence within one year, 1. Without record subsequent to the operation, 1.

Removal by electrolysis in 3 cases. Recurrence within one year, 1. No record after operation, 2.

Removal by the galvanic cautery *écraseur*, 11 operations performed upon 10 patients. Number of recurrences within one year, 3. Under observation for one year or more without recurrence, 6. No record subsequent to the operation, 2. Fatal cases, none.

Dr. JARVIS referred to a case in which he removed a very large myxo-fibroma, which partially occupied the right and completely occluded the left nasal passage, using his wire snare. No hæmorrhage occurred. Not a vestige of the tumor was to be seen four months after the operation. He also exhibited a new nasal speculum.

Dr. A. H. SMITH had removed a fibromata from the nasal passages by means of the snare, as had also Dr. Seiler.

Dr. INGALS referred to cases successfully treated with the galvanic cautery *écraseur*.

Dr. BOSWORTH hoped that the tabulated list presented by Dr. Lincoln would have the effect to lead general surgeons to abandon the horrible and dangerous operation by removal of the superior maxilla.

Dr. E. HOLDEN, of Newark, presented A CARBON ILLUMINATOR FOR EXAMINATION OF THE THROAT AND LARYNX, being an adaptation of Edison's illuminator.

Third Day—Morning Session.

A CASE OF THYROTOMY FOR MORBID GROWTH, WITH SUBSEQUENT DEVELOPMENT OF EPITHELIOMA IN THE CUTANEOUS CLOACÆ, BUT WITHOUT INVOLVEMENT OF THE INTERIOR OF THE LA-

RYNX.—Dr. J. SOLIS COHEN, of Philadelphia, read a paper with this title. The patient, a lawyer, sixty-three years of age, had been unable to pursue his professional avocation for two years on account of loss of voice. Thyrotomy was performed and a papilloma was removed. Subsequently Dr. Agnew removed an epitheliomatous growth which developed over the right wing of the thyroid cartilage, but not connected with the cartilage; and a second epitheliomatous growth, developing upon the left wing of the thyroid cartilage, was removed by Dr. Cohen nearly three months later. The patient did well for some time afterward, but finally died with symptoms of constitutional cachexia. The epitheliomatous disease was believed to have been due to irritation.

EXPERIMENTAL RESEARCHES ON THE TENSION OF THE VOCAL BANDS.—This paper was read by Dr. F. H. HOOPER, of Boston, by whom it was prepared in conjunction with Professor BOWDITCH, of the Harvard Medical School. The experiments were divided into two series: First, those which demonstrated that the action of the crico-thyroid muscle was to draw the cricoid cartilage upward on the thyroid; and, second, to determine the effect of the air-blast upon the tension of the vocal bands. The experiments were ninety-two in number, and were made upon nine dogs. In the first series, the animal was etherized, the larynx exposed, the branch of the laryngeal nerve supplying the crico-thyroid muscles stimulated, and the action upon the cartilages recorded by sphygmographic tracings. It was determined that the cricoid cartilage was the most movable part of the laryngo-tracheal tract; that the thyro-cricoid muscle should be described as arising from the thyroid cartilage and inserted into and giving motion to the cricoid cartilage. The second series of experiments established the fact that the air-blast was a direct and important longitudinal tensor of the vocal bands.

The PRESIDENT said that it would be impossible to estimate the value and the scope of a paper giving the results of so laborious and profound experimental research as did the one which had just been read, or to discuss it intelligently, without time for its careful study.

AURAL COMPLICATIONS OF INFLAMMATORY CONDITIONS OF THE NOSE AND THROAT.—Dr. BEVERLEY ROBINSON, of New York, read a paper on this subject, pointing out the symptoms which indicated the development of the aural complication in many diseases in which the nose and throat became affected. He believed that, in the eruptive fevers in which inflammation of the middle ear so frequently developed, the aural affection was due rather to the nature of the disease than to extension of inflammation from the throat, although when the latter was present the otitis was more likely to occur. The subject was divided into aural complications accompanying nasal and throat disease of an inflammatory character, first, of an acute, and second, of a chronic kind.

Dr. MACKENZIE, of Baltimore, had excited redness of the drum membrane by irritation of the sensitive point in the nasal passages before mentioned, and he believed that otitis media was sometimes of reflex origin, due to disease of the nose.

TWO POINTS IN THE ANATOMY OF THE LACUNÆ TONSILLARUM was the title of a paper read by Dr. D. BRYSON DELAVAN, of New York. The increased superficial area of the mucous membrane arising from the anatomical formation of the lacunæ, and its great attenuation in the depressions, constituted important factors in the pathology and treatment of affections of the tonsils.

Afternoon Session.

THE VALUE OF POST-LARYNGEAL PAPILLOMATA AS A MEANS OF DIAGNOSIS IN TUBERCULAR DISEASE.—The paper was read by Dr. G. W. MAJOR, of Montreal, who stated that, where a vel-

vety appearance of the parts referred to only had been reached, cure was sometimes effected; but, where the condition showed filamentous growths, none of the patients recovered. The cases referred to were those in which there was a family history of phthisis. The conditions mentioned, however, also, might exist in non-phthical subjects.

A CASE OF ENORMOUS TUMOR REMOVED FROM THE GLOSSO-EPIGLOTTIC SINUS, WITH REMARKS.—Dr. E. C. MORGAN, of Washington, related a case in which the tumor was of about the size of a walnut, and was removed with the finger, the pedicle being comparatively small. Microscopical examination showed that it was a myxo-sarcoma. The bibliography of the removal of tumors of a similar nature in this situation was given.

In the discussion which followed, reference was made to the value of the finger-nail as an instrument with which to remove tumors of the naso-pharyngeal space. It had been used successfully in several cases.

A CASE OF SUDDEN DEATH OCCURRING AFTER TRACHEOTOMY, WITH REMARKS.—This was the title of a paper read by Dr. MORRIS J. ASCH, of New York. In the case operated upon, the man did very well for some days, and was relieved of the symptoms of suffocation due to ulceration of the vocal cords. He suddenly died, apparently without cause, a few days after the operation. The post-mortem examination revealed no condition which would account for death. Dr. Asch believed that the fatal result must be accounted for on the theory of inhibition, spoken of by Brown-Séquard. He regarded tracheotomy as a very difficult operation, and also a very dangerous one, and believed that it should not be resorted to except for the relief of urgent symptoms.

ON ADHESION OF THE VELUM TO THE WALLS OF THE PHARYNX.—A paper with this title was read by Dr. A. H. SMITH, of New York. The condition was due almost or quite invariably to syphilitic ulceration, involving the wall of the pharynx and of the posterior surface of the velum, causing their adhesion by cicatrization. The occlusion of the nasal passages was more or less complete, and sometimes demanded an operation to admit of the passage of air through the nose, and the escape of offensive accumulations from the nasal mucous membrane. If a sinus existed, a cutting operation might not be necessary, dilatation proving effectual. Patients upon whom operations had been performed were presented.

The incoming President, Dr. FRANK H. BOSWORTH, was conducted to the chair, and spoke of the large attendance and the excellent work done at the present meeting, and said that he could not hope at the end of the year to leave the society in a more prosperous condition than that in which it had been left by the efforts of their worthy outgoing President, Dr. Lefferts.

PATHOLOGICAL SOCIETY OF PHILADELPHIA.

A REGULAR meeting was held February 8, 1883, Dr. JAMES TYSON, President, in the chair.

THE MORPHOLOGY OF PULMONARY PHTHISIS, by Dr. EDWARD T. BRUEN.—I have been requested by the committee of arrangement to present some considerations bearing upon the pathological anatomy of phthisis, as the basis of a discussion of the subject before the society. The etiology of phthisis is very properly exciting careful attention at present, but the subject is in a far too unsettled condition to permit even a useful discussion. I shall not, therefore, allude to it, and I feel that I must offer an apology for the triteness of the subject-matter of my paper; but I was informed that it was designed to have a series of discussions upon *familiar* pathological conditions. With this understanding, my scruples have been overcome. A consideration of special interest seems to me to be connected with the

morphology of primary tubercle. In certain individuals, owing to inherited tendency, or particularly unfavorable surroundings, recovery after bronchitis due to cold is retarded, or a susceptibility to a new bronchitis is increased. In either case lingering catarrh, in the majority of instances, is the inception of the series of pathological processes known as phthisis pulmonalis. Two microscopical appearances nearly identical occur, but they differ materially in their microscopic anatomy. Certain so-called miliary tubercles are frequently composed only of the inflammatory products of connective tissue, without the characteristic true tubercular arrangement. The word miliary expresses their appearance, but the inflammatory products may be so arranged as to represent true tubercle, pseudo-tubercle, or a diffuse inflammation. This tubercle, or pseudo-tubercle, is constant in the different forms of phthisis in the adult, except in the instance of pure interstitial pneumonia. Frequently the amount of tubercle tissue in the lungs is so great as to form the principal part of the process, although complicating inflammatory cheesy products are also present.

CLASSIFICATION OF PHTHISIS.—The term tubercular peri-bronchitis is probably the best for the earliest stage of phthisis, and sometimes is the best designation for the process all the way through. The appearance of the peri-bronchial tissues resembles berries on a stalk. The formation extends along the bronchi, spreading from acinus to acinus until the trunk is reached, and is also distributed in the sheaths of vessels and lymphatics. True tubercle may penetrate a bronchus and involve the lining membrane, and a true tuberculous ulcer may form the basis of an extensive associated bronchitis. Aside from this, these infiltrations excite interlobular connective-tissue growth, and subsequently the walls of the vesicles become thickened, and some vesicular catarrh ensues which may occlude a lobule. Thus, the three divisions of the pulmonary tissue share in the pathological process of early phthisis. The cause of more than nineteen twentieths of vesicular consolidation is the result of a process of desquamative pneumonia. This term is used to describe the diffuse inflammation which may accompany the former processes, and which, more than the other changes, paves the way for the disintegration of the lung. In this process the peripheral epithelial cells of the bronchi are proliferated and shed, thus filling the bronchi and infundibula, while the surrounding connective tissue becomes infiltrated with cells. In children this process is a common one, on account of the greater cellular activity in these subjects. In the desquamative catarrhal pneumonias of early life the process differs from the desquamative pneumonias of adults in that the air-cells only are filled, and there is little or no change in the intervesicular tissue. Hence it is that recovery is so much more frequent in children than in adults. This process of desquamative catarrh is the basis of those cases of acutely developed phthisis which follow croupous or catarrhal pneumonia, and which has been called acute catarrhal phthisis or galloping consumption—sometimes pneumonic phthisis. When the pathological process just described is less rapid, the result which follows has been classed by some as acute caseous pneumonia. When the changes are still more slowly developed, it is synonymous with the chronic catarrhal pneumonia. The relative development, then, of these processes known as phthisis in the three divisions of the pulmonary tissues—the bronchial, the interlobular, and the vesicular—is dominated by the activity of the inflammatory process; peri-bronchitis with consecutive changes occurring in the latent forms, desquamative pneumonia in the more acute forms, while a process, presently to be alluded to—interstitial phthisis—occurs as a very slowly developed change. In many of these cases, when the destruction of the lung is very rapid, the tubercular deposition, true or false, occurs in early

stages, but is marked in the latter by the development of the secondary, inflammatory, desquamative, pneumonic processes. The situation at which phthisis is developed is probably most frequently the apex. The forces of expiration presumably are least efficient at this site, and the lungs are less entirely freed from mucus. The circulation also is less than at the roots, and the products of inflammation are, therefore, more dry. The roots of the lungs, however, in a large minority of cases, are primarily affected. This is especially true of cases in which the original processes of invasion are latent. I pause here to observe a clinical point of some interest—viz., that when the area of lung involved in the process of phthisis is distinctly limited, and does not shade off gradually into healthy lungs, my opinion is that a favorable result may be very possible. Certainly I have seen the process of phthisis arrested even when it had passed into the stage of cavity when the lesions were sharply defined. The localization of a lesion, other things being equal, is a point of favorable prognosis. Another topic of interest is the share taken by pleurisy in the development of phthisis. A specimen already exhibited before the society is again shown to-night. It was taken from a colored man, seventy years old, with a family history free from the taint of pulmonary disease. He was tapped five times for the relief of hydrothorax due to heart-failure. Each paracentesis was followed by an exacerbation of pleurisy. Nine months after the first operation death occurred from an increase of hydrothorax. The autopsy disclosed general miliary tuberculosis of the pleura and secondary deposits in the viscera. Throughout the parenchyma of the lung adjacent to the pleura there was a copious deposit of tubercle, but the other parts of the lungs were normal. Another specimen exhibits the same tendency—viz., general pleurisy with phthisis and cheesy deposit in the pulmonary parenchyma, with cavities. The deposits are most abundant near the pleural surface of the lung, the deeper parts giving evidence of a more recent formation. These specimens show that pleurisy may give origin to a tuberculous inflammation. But, while this is true, it is conceded by all that dry pleurisy is a frequent secondary lesion in the progress of pulmonary tuberculosis. Pleurisy is, however, in many cases very conservative, since by the thickening and adhesion of the pleural surfaces the ulceration of the walls of superficial cavities is arrested, and pneumothorax is prevented.

Interstitial Phthisis, or Cirrhosis, is a process in which true or pseudo-tubercle may or may not be associated. The pulmonary tissues are traversed by narrow bands of connective tissue which may gradually compress it more and more, finally converting it into dense fibrous masses. The color of the lung is apt to be slaty and dark. However, in some cases of interstitial phthisis, patches of the peri-bronchial and desquamative pneumonia may be found with cheesy degeneration. Interstitial formation is an important part of the process by which cavities are inclosed and sometimes cicatrized.

Distribution.—Interstitial phthisis, if consecutive to bronchitis, is usually bilateral, affecting the upper lobes, although as a unilateral affection it is not infrequent.

Syphilitic Phthisis.—It is of interest to note in this connection that the early lesions of syphilitic phthisis, so called, are evoked very often by bronchial catarrhal inflammation, which predisposes to structural changes. In these cases there is a principal interstitial fibro-nuclear growth commencing in the alveolar wall and concentrically arranged around the smallest bronchi and pulmonary vessels. Wagner maintains that the alveolar wall is implicated as commonly in syphilis as in ordinary phthisis. Bronchial narrowing occurs in these cases by the pressure of the new growth which develops along their lumen. Bronchial occlusion may occur from this new forma-

tion, but it is also caused by the enlarged bronchial glands, one of the effects of syphilis. By this means serious mischief in the lungs may be developed, in kind proportioned to the degree of obstruction, such as atelectasis, emphysema, and certain forms of pneumonia. Green and Virchow suggest that the origin of syphilitic diseases of the lung is distinctive in this respect; that while in ordinary phthisis the fibroid is secondary or co-equal in its development with changes in the alveoli and alveolar wall, in syphilis there are primarily principal interstitial changes. Later, when entire vesicular consolidation and breaking down occurs, the process is similar to ordinary phthisis, and indistinguishable from it. The vascularity of the new growth of connective tissue is also claimed to be a distinctive characteristic of the inflammatory proliferation due to syphilis. But we must remember, in any discussion of early syphilitic lung disease, that the one special and characteristic lesion of syphilis is the change in the tutamina of the blood-vessels. This has not yet been demonstrated in the lung, but merely general thickening of the external coat of the vessels. In the effect of interstitial processes upon the bronchial tubes, the syphilitic differs from the non-specific disease. The tough, contracting fibrous tissue which radiates through the lung draws together the bronchial tubes, and deforms, by narrowing or flattening them, possibly even to obliteration. On the contrary, in the forms of non-syphilitic fibroid phthisis the bronchial tubes are widened. The process proceeds in syphilis from the hilus into the interior of the lung, following the track of the bronchial radicals and the bronchial arteries. The lesions also occur on the surface, near the visceral pleura, where there is also more connective tissue. Gummata occur as a later process. Time will not allow me to allude to these as I should like. A demonstration of the pathology of phthisis would be incomplete without including some cases of true miliary tuberculosis. This process may be primary in the lungs, or secondary as a part of the general infiltration of the serous and mucous membranes, the lymphatic glands, and the viscera. This form of tubercle is characteristically recognizable only in the miliary stage. Its appearance as a number of small, hard, translucent nodules is too familiar to need description. A specimen upon the table illustrates an extensive lymphangitis of the pulmonary pleura forming a network over the pleura. The process microscopically shows adenoid tissue in nodular form. Similar cases were described before the London Pathological Society in 1880.

Enlargement of the Bronchial Glands.—Another important part of the phthisical process is the enlargement of the bronchial glands. They present a firm, pigmented character, and the connective tissue is usually infiltrated. I have observed in many cases, in individuals suffering from temporary catarrhal conditions of the bronchial mucous membrane, especially when there is a family history of inherited phthisis, but particularly in distinctly scrofulous persons, a set of symptoms referable to enlargement of these glands. These symptoms consist chiefly in an alteration in the rhythm of the breathing, presumably from pneumogastric irritation, in apparent inability to fill the chest with air, and a sense of suffocation is complained of. Added to these there is *pain* in the back to the right or left of the second dorsal vertebra. Further detail of the clinical ensemble would carry one away from the pathology of the subject. When the enlargement of the bronchial glands is excessive it may occasion severe mediastinal pressure, and pain becomes an important clinical symptom, and is of the sort occasioned by mediastinal growth generally. To detect this enlargement during life, Guéneau de Mussy has suggested percussion over the spinous processes of the cervical vertebræ in the course of the trachea. Following this line in healthy subjects, a distinct tubular sound is elicited by percussion down to the

point of bifurcation of the trachea at the level of and opposite the fifth, and downward we get the lower pitched and pulmonary resonance. When the tracheal or bronchial glands are enlarged, the tubular sound over the upper dorsal vertebræ is replaced by dullness, which may contrast sharply above with the tracheal and below with the vesicular resonance. The result of bronchial pressure upon the pulmonary tissues is best marked when the processes of phthisis are not too extensive, also in interstitial phthisis, or in cases where there is marked bronchitic complication. In these cases the lumen of the bronchi is seriously diminished and vesicular air-supply is interfered with. Consequently, emphysema, with or without asthma, atelectasis, or a very intractable bronchitis, may occur. I will not describe the morbid process of phthisis in detail. The involvement of an entire lung is simply the filling up of the parenchyma with peribronchial product or with the results of the desquamative, pneumonic, or interstitial process. And as one or the other of these predominates, so do we have peribronchial, fibroid, or catarrhal phthisis. Another interesting, although not demonstrable, incident in the pathology of phthisis is hæmorrhage. Bleeding from the lungs occurs both early and late in the history of cases. The late hæmorrhage is easy to explain, being nearly always due to ulceration of the blood-vessel walls. The cause of early hæmorrhage is less simple; it is possible that in cases of phthisis there may be malnutrition or fatty degeneration of the blood-vessel walls, rendering rupture under conditions of increased arterial tension in the lungs an easy circumstance. It may also be the result of tubercular infiltration of the muscular walls which is followed by rupture of the blood-vessels.

Cavities in Phthisis are the result of several processes. They occur by (a) a slow or rapid process of fatty degeneration, followed by ulceration; (b) as the result of chronic bronchitis and softening of bronchial tissue, with subsequent yielding to traction from without—for instance, in broncho-pneumonia, or fibroid phthisis; (c) abscesses as a sequence of acute lobar pneumonia, following hepatization or purulent infiltration; (d) as the direct result of gangrene, itself the immediate consequence of wounds of the lung or blood poisoning, or of emboli. Local gangrene, on a small scale, occurs sometimes around cavities in the lungs, or in the bronchial tubes, and may give rise to temporary fœtor of breath, but is not likely to lead to fallacious inferences, chiefly because of its temporary character and the absence of permanent concomitant symptoms. It naturally follows that there are two locations for vomica—the pulmonary and bronchial tissues. Specimens illustrating the various forms of cavities are upon the table. The limits of a paper designed to open a discussion on phthisis will not permit me to dwell upon the bearing of these pathological changes upon physical diagnosis. I therefore will close with a brief *résumé* of the general clinical symptoms which define the diagnosis of the various sorts of cavities.

Phthisical Cavities commonly are situated in one or both lungs, and are indicated as a development in a train of symptoms which include as prominent features gradual emaciation; persistent loss of weight by reason of mal-assimilation of food; more or less frequent hæmorrhage and hectic, frequent pulse; hacking, intermittent cough; nummular sputum, expectorated in varying amounts throughout the twenty-four hours, and not periodically, as in bronchial dilatations, nor inaugurated by a gush of pus and mucus, as in abscess.

Cavities of the Nature of Abscesses.—The pathology of these cavities, with its coincident clinical history, is not that of phthisis. The history of these cavities is either recovery by contraction (especially after wounds), or more frequently the abscess grows larger and larger until the entire lung may be destroyed, in this respect resembling phthisical cavities. Where

death occurs, it is by exhaustion and hectic; where recovery takes place, it is by free opening, externally or internally, and evacuation of the contents. At times the small amount of constitutional disturbance, slight degree of emaciation, good pulse, easy breathing, slight cough, and healthy complexion are in noticeable contrast with the physical signs. Cavities of the nature just described are mostly located in the base of the lungs.

Cavities due to Bronchial Dilatation.—Frequently for years the general health is almost unimpaired, and it is never so proportionately to the degree indicated by the physical signs. There is no hæmorrhage nor night sweats, and emaciation is not a pronounced symptom. The same physical signs persist for months or years unchanged, contrary to the history of most phthisical cavities, which continually alter with the advancing malady. The expectoration of bronchial dilatation is more abundant, fluid, and purulent than in catarrhal phthisis, and is usually brought up in the morning or evening by the cupful. It is not a constant spitting of nummular sputa, as in true consumption. In chronic cases the expectoration may become so foetid as to generate suspicions of gangrene; the cough is harassing, but is often relieved if the bronchial cavity is thoroughly emptied.

Dr. MUSSEY said that little could be added to this admirable and concise, yet exhaustive, *résumé* of Dr. Bruen's on the morphology of phthisis. The limited experience that he had had in the study of the histology of phthisis had convinced him that in the microscopical structure of the lesions there is but little difference noteworthy in the primary changes. We had one school teaching that inflammation, another that tubercle, was the primary element. He could not but agree with the author of the paper in the statement that the disease varied histologically with the variance in the intensity of one of these elements. In both we had epithelial proliferation and accumulation, changes in the vascular and lymphatic tissues (tubercle), and increase in the interlobular connective tissue. So intimately was the evolution of each of these processes connected that a classification like that of Greene ("Lancet," 1882) seemed most proper: (a) Consolidation intra-alveolar. (b) Consolidation involving mainly alveolar walls. (c) Consolidation consisting largely of intra-lobular connective tissue. Without absolute committal either way, and yet in the line of exact truth, the distinction thus given seemed to cover the entire histological ground. Dr. Mussey had had abundant opportunity for the study of the clinical aspect of phthisis, and, although an arbitrary histological distinction of its varieties could not be made, it was of the utmost importance as influencing treatment, and hence the prognosis of the case, to have a distinct and definite idea of the clinical varieties. The importance of the subject would be sufficient apology for the clinical remarks. Ante- and post-mortem observation had led him to adopt the following classification, as convenient, systematic, and embodying the various phases of the disease:

A. Acute. 1. Catarrhal pneumonia. 2. Pneumonic or caseous phthisis. 3. Pulmonary tuberculosis. 4. Miliary tuberculosis.

B. 1. Catarrhal pneumonia; tubercle might be secondary. 2. Tuberculosis. 3. Interstitial or fibroid phthisis; tubercle might be secondary.

He said that it was scarcely fair or proper to call acute catarrhal pneumonia a kind of phthisis, as it was only related as a possible primary factor. So seldom was it recognized, and so baneful were the results of non-recognition, and hence inactive and inadequate treatment, that it was important to show its relation. It would be observed that catarrh and tubercle were distinguished, and so, for convenience and contrast, we might

term the kinds "catarrhal" and "tubercular." Perhaps a clew to the pathology of phthisis might be found in defining the characteristics of each. In the first place, there was a marked difference in the predisposing causes of the disease—hereditary and diathetic conditions. Thus, tubercular phthisis was markedly hereditary, catarrhal was not; the tubercular was associated with the tubercular diathesis and a phthisinoid chest; the catarrhal, in some, with the scrofulous diathesis and a perfect chest. Then the mode of onset differed greatly. In the former the general symptoms were more marked, the pulmonary symptoms in abeyance; in the latter, the pulmonary symptoms were more marked, the general slight. Emaciation, loss of appetite, and dyspepsia preceded or accompanied the development of the former; they did not occur until late in the latter. Amenorrhœa and changes in the voice also occurred early in tubercular phthisis. In tubercular phthisis, hæmorrhage occurred more frequently and earlier than in catarrhal. In tubercular phthisis, dyspnoea was a more marked and early symptom, and was out of proportion to the physical signs. Debility was more marked and more readily induced in tubercular phthisis. The temperature range was not so high early, and did not have the long daily sweeps in the late stages in tubercular as in catarrhal phthisis. With a doubtful mask, it seemed that pleurisy and chest-pain were more common and constant in the tubercular than in the catarrhal form. The physical signs were bilateral and not pronounced in the tubercular form; they were unilateral and pronounced in the catarrhal form. The progress of the tubercular form was rapidly and progressively downward; of the catarrhal, slow and in spurts. Tubercular phthisis was contagious and auto-infective. Over and over again did cases present themselves at the University Hospital and Dispensary with just such definite and broad distinctions, which distinctions should determine the line of treatment to be adopted, the catarrhal form requiring a more active local and general antiphlogistic treatment. It was not to be forgotten that the cases were not always, he might say generally, so easily distinguished, while the picture did not apply to acute miliary tuberculosis or fibroid phthisis. In a previous discussion on phthisis, Dr. Mussey had held that acute primary plastic pleurisy did not occur save in a tubercular subject, and hence was secondary to that diathesis. That statement was possibly too broad, and it should be that frequently recurring acute pleurisies occurred only in the tubercularly diathetic, and were antecedent to the development of phthisis. The recognition of exocardial and subclavian murmurs led one to say that persons having such sounds were threatened with phthisis.

Dr. ESKRIDGE said that he had been much interested in Dr. Bruen's remarks, in most of which he concurred. As to pleurisy antedating phthisis, it was an old view, which had lately been revived. He had been struck with the frequency of chest-pains preceding phthisis. In over seven hundred cases of which he had notes, this symptom was noted in more than two thirds. This pain might be on the opposite side to that of the affected lung. Interstitial phthisis was not always a chronic affection, Dr. Barlow and others having reported cases which proved fatal in six months. Hæmorrhage, in his experience, was a very common symptom in this variety of phthisis. Dr. Eskridge called attention to the fact that cardiac valvular diseases, especially mitral regurgitation attended by venous congestions and coming on after birth, were rarely associated with phthisis, while congenital deformities of the heart attended by venous stasis, etc., were followed, according to some eminent authorities, in nine tenths of the cases, by tuberculosis of the lungs.

Dr. SHAKESPEARE said that one point made by the lecturer had especially struck him as being opposed to his own experience—viz., that the part of the lung attacked earliest was gen-

erally the root. He had usually found the consolidation at the periphery of the lobe, often forming, as it were, a shell of solid lung perhaps an inch thick, while the central or deep portions would be either not at all or but little affected. This peripheral consolidation seemed to have no particular relation to initial pleuritis, for the consolidations were quite frequently met with in cases almost free from pleurisy and old adhesions. He had also very often noticed, at autopsies after death from intercurrent diseases, wedge-shaped patches of solidified lung tissue having the base at the periphery of the organ and a slightly raised surface, much like infarcts, and containing miliary tubercle, while the intervening pulmonary tissue was normal.

Dr. FORMAD asked Dr. Bruen what he considered was the difference in the pathology of acute and chronic phthisis. Also, on which side the disease most commonly occurred. Dr. Formad also desired put on record some new observations on the histology of phthisis made by W. H. Mercer in the Pathological Laboratory of the University of Pennsylvania, which he narrated as follows: That acute phthisis (all fatal cases) was invariably complicated with croupous pneumonia, which conditioned the lethal termination; that the lining of the bronchioles and the endothelium of the blood-vessels played a very active part in the formation of organized tubercle granulations, filling and widely distending the lumina in both instances. The existing observations on this point, so far as he remembered, referred only to blood-vessels, and then merely to cheesy, broken-down material obliterating vessels, or occasionally to the formation of giant-cells, or to something which in transverse section simulated a giant-cell. Mr. Mercer states that the obliteration of bronchioles by living, organized granulation-tissue was the most common starting-point for pulmonary tubercle granulations, and formed the greater bulk of the latter. He also found that the exudate within the air-vesicles in acute phthisis was capable of undergoing complete organization, and that a group of such blocked-up air vesicles with organized exudate was usually called (erroneously) a miliary tubercle, the outlines of the air-vesicles being mistaken for submiliary tubercles. Mr. Mercer had failed to find a single true miliary tubercle in a large number of thoroughly studied cases of phthisis, and agreed with those who regarded miliary tubercle nodes as secondary products only. Dr. Formad desired distinctly to state that Mr. Mercer's observations were made on and applied only to the lungs.

Dr. TYSON was interested to note how much histological investigation had contributed to our knowledge of the nature of these important processes under discussion; and, while he was ready to admit that we owed much to experimental pathology, he felt that our present more correct notions were the result of microscopic studies of the human tubercular lung. The point to be insisted upon was, that all these processes were tubercular and all were inflammatory, the catarrh of the lung and tubercle granulations being in all cases the initial lesion, whence it extended peripherally by desquamative catarrhal pneumonia or centripetally by a tuberculous peribronchitis, the former furnishing the rapid and the latter the slow forms of phthisis. That pleurisy was often the initial lesion of tuberculosis he thought had long been acknowledged.

Dr. SHAKESPEARE said that the observations reported by Dr. Formad for his pupil reflected great credit upon both, and was another testimony of the value of the work done in the pathological laboratory of the University, but at least two of the announcements, for which novelty and originality were claimed, had been forestalled years ago by other observers. He had particular reference to the organization of the products within the alveoli of the lung, and the announcement that the walls of the minute blood-vessels, by a proliferating endoarteritis and periarteritis, formed the miliary tubercle. The former was

not only recognized and described in Green's "Hand-book of Pathology," but was also most beautifully *illustrated*. The latter had been repeatedly observed and published, sometimes with illustrations. This origin of tubercle was distinctly referred to in the text-books of Wagner and Cornil and Ranvier. All these books were in the hands of the University students.

Dr. FORMAD said that existing observations on this point, so far as he remembered, referred only to blood-vessels, and then merely to cheesy, broken-down material obliterating the vessels, or occasionally to the formation of a giant-cell, or to something which, in transverse section, simulated a giant-cell.

In closing the debate upon the subject, Dr. BRUEN said that he had coincided with Dr. Tyson in the opinion that phthisis was rarely associated with heart-disease. In mitral regurgitation there was often, indeed, a thickening of the pulmonary substance allied to the indurative changes in the other organs from like causes. Advanced fibroid disease, with cavities, as shown in one of the specimens exhibited by him through the kindness of Dr. Hinsdale, he had not met with heretofore.

Dr. FORMAD's query as to the relative frequency of phthisis upon the right or left side he felt must be answered by the statement that one side was as liable to disease as the other, while, probably in a small majority, the right side was most frequently involved. He thought that the peripheral portion of the apices anteriorly was the most common starting-point, where there was much desquamative pneumonia and rapid phthisis, while the roots posteriorly were primarily attacked in the more slowly developed forms of broncho-pneumonic phthisis. The roots of the lungs were the seats of the latent phthisis developed as the sequential lesion of croupous pneumonia.

Dr. Bruen dissented from the view that croupous pneumonia was a frequent cause of death in phthisis. He believed that in the rapid, as well as in the more latent form of phthisis, death was preceded and hastened by a development of the tubercular nodular tissue to which allusion had already been made. This tissue completely filled up and choked the acinous pulmonary structure, causing dyspnoea, etc.

C. B. NANOREDE, M. D.,
Recorder.

Letters to the Editor.

THE MARINE-HOSPITAL SERVICE AND ITS DETRACTORS.

WASHINGTON, May 21, 1883.

To the Editor of the New York Medical Journal:

As a matter of justice to the Marine-Hospital service and to myself, will you kindly allow me to reach the profession through you by publishing a reply to the following scandalous charges, which have been repeatedly made by certain of the brethren who have a grievance:

THE INSINUATIONS. (SAMPLES.)

THE FACTS.

We think that Dr. Hamilton, in publicly comparing the professional and financial management of hospital patients in the two services, unreasonably washes linen in public, and makes comparisons which are uncalled for and unprofessional.

To a civilian, accustomed to the amenities of professional life, it seems very strange that when a doctor becomes a politician he should lose all remembrance of the code under which he first drew his professional breath.—*Philadelphia Medical Times*, March 24, 1883.

Dr. Hamilton simply replied to an assertion that it would be more economical to treat merchant sailors in naval hospitals. He nowhere attacked the professional character of the Medical Corps, many of whom he numbers among his personal friends, and for whom, as a body of professional men, he entertains the highest respect.

In the Report of the Supervising Surgeon-General of the Marine Hospital it is stated that the hospital at New Orleans had been offered for sale at thirty thousand dollars, but that, no sale having been made, the service had sustained the loss of the money paid for advertising.

The facts seem to be that this hospital, which had cost originally five hundred and ninety thousand dollars, and had had spent on it one hundred and fifty thousand dollars, was offered for sale, with the result of the highest bid being nineteen thousand dollars. All this the honest, straightforward Surgeon-General of Marines did not deem of any interest to the general public, although he could weep over the pennies lost in the besmirchment of printer's ink. No wonder his virtuous indignation had to find vent upon the bad management of the medical affairs of the navy. Seven hundred and twenty-one thousand dollars taken from the hard earnings of sailors, to be wasted in one hospital, through incompetency, or something worse!

Again, we are told—but not in the report—that at Cincinnati a marine hospital was obtained at the cost of two hundred and thirty thousand dollars, and sold for seventy-five thousand dollars—a hundred and fifty-five thousand dollars more gone! How many more of these hospital operations have disgraced the Marine-Hospital service we do not know, as we have no official facts to enlighten us; but those given in this editorial are vouched for as accurate by high authority. We should be most happy to publish an official denial of them. Of course, no one has made money by these operations. No American politician ever did make money. Congress certainly ought, however, to insist on having a complete honest statement, so brief and clear that it could be read and understood by every one, of all the doings and the losses of this branch of the service; for, at present, its stupendous political cupidity and activity seem equaled only by the mystery of its mismanagement.—*Philadelphia Medical Times*, May 5, 1883.

For an attack on the late Surgeon-General (Woodworth), see the *Philadelphia Medical Times*, March 15, 1879.

Concerning similar attacks upon himself, Senator Sherman once pointedly said that to certain slanderers "the jail would be a refuge, and a libel suit a paying advertisement." If Dr. H. C. Wood thinks there is anything in this quotation personal to himself, he is welcome to make the application. I, however, must thank Dr. Wood for varying from his usual policy and practice by making his insinuations against myself while I am yet alive and able to speak in my defense. His bitter attack against my predecessor was written while that officer was on his deathbed, and was printed while the earth was fresh upon his coffin. And such is the would-be apostle of "the amenities of professional life!"

Very respectfully,

JOHN B. HAMILTON.

This New Orleans hospital was planned in 1855. It was never finished, and was used as barracks by troops of both armies at intervals during the late war. No person now in the Marine-Hospital service had anything to do with its plans or construction.

The Cincinnati hospital was commenced in 1856, completed in 1860, and was sold in 1866. Dr. John M. Woodworth was appointed to the office of Supervising Surgeon in 1871, was made Supervising Surgeon-General in 1875, and died in 1879. The writer was promoted in 1879, and no other persons have ever occupied the office, which was created in 1870, four years after the Cincinnati hospital was sold. Congress established the hospitals referred to from the public Treasury, not from the Hospital Fund; and, when the hospitals were sold, it was not in pursuance of any recommendation of this office, as the dates will easily show. In regard to the New Orleans hospital, Mr. Mullett reported long ago that it would cost more to repair the old, unfinished building than to build a new one, and Congress accordingly has ordered a new one built. Finally, if Dr. Wood is really desirous to find out the history of the service, he may do so by consulting Appletons' "Annual Cyclopædia" for 1879, page 778; the "Annual Reports" for 1872, 1879, and especially, for a complete report on the New Orleans hospital, the "Annual Report" for 1880, page 179.

THE QUESTION OF THE CODES.

244 WEST 56TH ST., NEW YORK, May 22, 1883.

To the Editor of the *New York Medical Journal*:

SIR: This discussion of codes is becoming confused with side-issues. Really, the matter is in a nut-shell, and the test is simple enough, this one point settled, viz.: Is the new code calculated to give comfort and encouragement to homœopathy; does the public take this view of the controversy?

No physician in possession of the proper spirit and teachings of his profession doubts that its principles are sound and its methods scientific, or that homœopathy is utter nonsense and fraud, perverting the minds and corrupting the morals of the public (as all error does), and consuming the legitimate substance of medical progress and obstructing it in many other ways.

This is as certain to us as anything not mathematically demonstrable. If it deceives celebrated individuals, and is in popular favor, this proves that it is subtle and dangerous, but is not a reason for our public approval of it. It matters not what the State legislates concerning it. Knowing it to be false, we lift up our voices in condemnation until the public listens, is instructed, and legislates accordingly.

Is it illiberal to refuse to compound with the devil, or to depart from principles eternally right? Fraud can not be persecuted, nor is there anything in the liberal spirit of the times demanding a compromise with it, unless the spirit of commercial greed be the true spirit of the times, an insinuation indignantly repudiated by the advocates of the new code. Opportunism is one thing, liberalism quite another.

However much the attitude of the American Medical Association may affect us, it is of subordinate importance, and confuses the discussion. Its expression may serve as a safer guide to such as are disposed to settle the matter on authority alone, since it is less liable to have been influenced by local and personal considerations, is a more general expression, and conformable to long usage.

The old code certainly embodies a high ideal, and should be re-enacted unless a better substitute is offered. Or if the new code is to degrade this ideal and lower the tone of medical morals, granted that this ideal is too high to be appreciated by the general public in its present nebulous state of intellect and morals, hold it to plainer view, then; do not put it out of sight. If it be offering an indignity to those at the head of the profession to prescribe formulated rules to regulate their conduct, there is, at least, consolation for them in the reflection that laws are made to restrain, not the righteous, but the transgressors.

Whatever affects the moral attitude of the whole profession should be regulated by it, not left to the caprices of individuals, however heightened some of them may be. Without the admonishing presence of a formal code, it is to be feared that some might, in blindness or weakness, err from the straight and narrow path; or is it foginess that sees the path so straight and narrow as not to allow wide margins for wayside wanderings? We are not all shining lights in the profession; but all are human. It can do no harm to display the instruments of torture as warnings, to have means of discipline available; but it would scarcely appear the part of wisdom hastily to unarm and, too late, find ourselves defenseless.

When we have safely secured ourselves, and the general public is with us upon the moral level to which the old code leads, a constitutional preference having been acquired for that pure atmosphere; when error has become a psycho-physiological impossibility, those organic changes having become indelibly registered in the cephalic substance which may be supposed to result from an infinite series of uniformly virtuous thoughts and acts—under such circumstances a formulated code of ethics might seem superfluous to the utilitarian, but still to be sacredly treasured by the reverent and religious spirits.

Is it true that the old code is a dead letter? Vice is less dangerous committed secretly and in defiance of well-known laws than when the law permits its open indulgence; for then it ceases to be regarded as vice, and the virtuous become contaminated, and general moral decay ensues. Consulting with homœopaths has generally been indulged in as a solitary vice, and, perhaps, with a sort of sneaking feeling of penal transgression, to be carefully concealed except from such as were known to sin likewise. It may not have been the intention of

its framers, but it seems plain that a fair construction of the new code will have a tendency to relieve distinguished gentlemen of all irksome restraints and permit free and easy association with homœopaths and the like, without the fear of discipline ever being suggested even, however much the case might deserve it, and without there being too keenly felt any of the salutary and restraining influences which the old code was wont to inspire.

HOBART CHEESMAN, M. D.

Miscellany.

DIPHTHERIA SPREAD BY MILK.—"Toward the close of last year," says the "British Medical Journal," "an outbreak of diphtheria, presenting somewhat unusual characteristics, occurred at Devonport, and the Medical Department of the Local Government Board was compelled to yield to an urgent request from the Town Council that an investigation might be made into the circumstances attending the outbreak. Dr. H. Franklin Parsons was selected to undertake the inquiry, and his report contains many points of interest. In the first place, the outbreak differed from many others in its incidence upon persons of high social position. Members of the families and servants of professional men, and more especially of officers in the army and navy, including those in the highest command in both services, were the only class of people attacked. In but one single instance was a tradesman's family attacked, and no case is known to have occurred among the large working-class population. At the date of the inspection the number of known recent cases of the disease was thirty-one, of which five had proved fatal. The houses in which diphtheria occurred were of the better class, mostly in elevated and open situations; and there was nothing peculiar in their sanitary condition to account for the occurrence of the disease, nor, except in a very few instances, was there a known exposure to infection from a previous case. It was observed, however, that the greater number of persons affected with diphtheria obtained their milk from a particular dairy, upon which, in consequence, suspicion had fallen. Of the twenty-nine persons who were attacked in December, all were supplied from this dairy, with two exceptions, and one of these had certainly, and the other probably, had milk on some occasions from the same source. The dairy in question has a large trade in Devonport and Stoke, supplying about 256 houses, containing 347 families; and it is estimated that the customers who fetch milk from the shop would raise the number of families to nearly 500. There are other dairies doing a large business in the same place; but their customers, with some doubtful exceptions, entirely escaped. On visiting the farm whence the milk was obtained, Dr. Parsons found no abnormal conditions. It was noted, however, that a well had been closed at the suggestion of the local health officer, though it was explained that the water was only used for washing carts. Two men were employed in the dairy; but neither among them and their families, nor among lodgers in the same houses, could any recent sickness be discovered. The residents at the milk-shop—five adult persons—were also stated to have all been in good health; but next door a case of diphtheria had occurred early in December. In a narrow back yard behind the shop the milk-cans were washed with town water boiled in a small outhouse. From this outhouse the water-closet is divided by a partition; and, on pouring benzoline into the drain of the next house, in which a case of diphtheria had occurred, the smell was perceived in this water-closet. It seems not unreasonable to suppose that the infective matter may have gained access to the milk by the wiping out of the cans with cloths which had hung up in the narrow, close back yard, and had contracted impurities from the atmosphere. The small proportion of customers attacked, however, shows that any contamination of the milk by infective material could have only been partial and occasional in its occurrence. In view of the special incidence of the disease upon families of the well-to-do, and of the condition of the milk-shop premises, it is suggested whether the cream, standing as it did the longest time in the shop, might not have been especially the

vehicle by which the infection was conveyed; but Dr. Parsons met with no facts to corroborate this view. It is significant, however, that many of the persons attacked were constitutionally liable to sore throat. A chronic ulceration of the throat, a ragged tonsil, or an enlarged mucous follicle, would naturally afford more lodgment to infective material, and a fitter soil for its development, than a healthy and unbroken mucous membrane."

M. PASTEUR'S PENSION.—Steps are being taken to induce the French Parliament to increase M. Pasteur's pension from 12,000 fr. to 25,000 fr. annually, that allowance to revert to his wife and children at his death.

THE LUNATIC ASYLUM AT NEWARK.—The Grand Jury, whose intention to investigate the management of the county asylum at Newark we lately mentioned, is reported to have made a presentment to the effect that the institution is overcrowded, that different classes of patients are not sufficiently separated from each other, that the number of attendants is inadequate, that the nurses give drugs on their own responsibility, and in particular that a resident physician should be appointed.

THE LUNATIC ASYLUM AT NORTHAMPTON, MASS.—It is stated that the superintendent, Dr. Pliny Earle, will tender his resignation within a few months, and it is thought that the assistant superintendent, Dr. Edward B. Nims, will be promoted to the position thus vacated.

THE BLOCKLEY HOSPITAL ETHER.—At a recent meeting of the Hospital Committee of the Board of Guardians of the Blockley Almshouse, Philadelphia, a member of the medical staff called attention to the poor quality of the ether that was provided as an anæsthetic. Accordingly, the committee ordered that in the future only such ether should be procured as was specified by the physicians.

A SANITARY CONVENTION IN BALTIMORE.—At a recent meeting of the Maryland State Board of Health, on motion of Dr. Chancellor it was decided that hereafter sanitary conventions or meetings be held at least once a year, under the auspices of the board, in different parts of the State, with a view to promote a general interest in sanitary science; that the first meeting be held in Baltimore on the fourth Tuesday in October, 1883, and that a committee, consisting of the president and two members of the State board, the president and secretary of the city board, the president and secretary of the Medical and Chirurgical Faculty of Maryland, and five citizens, be appointed to consider the best means of holding the convention, that prominent sanitarians throughout the country be invited to take part in the convention, and that manufacturers and dealers in sanitary appliances be invited to forward their goods for exhibition at the meeting.

SMALL-POX IN PENNSYLVANIA AND MINNESOTA.—Press dispatches dated last Saturday stated that at that time there were thirteen prisoners sick with small-pox in the County Prison at Lancaster, Pa., and that there were twenty-five cases of the disease in St. Michaels, Minn., where several deaths from it had occurred.

SMALL-POX SPREAD AT A FUNERAL.—According to a newspaper report, a young woman recently died of small-pox in Cincinnati, where she was attending a music school. The case was diagnosticated as one of purpura hæmorrhagica, a burial permit was given on the strength of a death certificate to that effect, and the body was embalmed and sent to the young woman's home in Illinois, where it was exposed to view at a funeral, with the result of spreading small-pox in the neighborhood. It is added that two other pupils of the music school were afterward seized with the disease, and that the school building has been quarantined.

THE CONGRESSIONAL SANITATION FUND.—It is understood that the sum of one hundred thousand dollars appropriated by Congress for use in preventing the spread of epidemic diseases during the current year is to be intrusted by the President to the Marine-Hospital Service.

THE DANGER OF YELLOW FEVER FROM HAVANA.—The law requiring a sanitary inspection of vessels at Havana before they sail for this country expires to-day, and Congress has made no provision for a renewal of the requirement.

THE OREGON STATE MEDICAL SOCIETY.—The tenth annual meeting of the Oregon State Medical Society will be held at Portland, Wednesday, Thursday, and Friday, June 13, 14, and 15, 1883, commencing at 2 P. M. The following papers will be read: Antiseptic Surgery, by H. C. Wilson, M. D.; Chronic Nasal Catarrh, by Jay Tuttle, M. D.; Germ Theory of Disease, by Charles E. Banks, M. D.; Present Condition of Insanity Throughout the World, by S. E. Josephi, M. D.; Retarded Dentition, by Mrs. B. A. Owens, M. D.; Tuberculosis, by F. A. Bailey, M. D.; Laceration of the Cervix Uteri, by E. P. Fraser, M. D.

THE OLD AND THE NEW.—Our brethren in New York seem to be having a hard time of it with their new code. A meeting of the Academy of Medicine was held April 19th, which was quite largely attended, being, as it is charged, "packed" with the friends of the old and enemies of the new. After a couple of papers had been read and the usual programme had been followed, Dr. Austin Flint, Jr., rose and proceeded to read certain resolutions deprecating the admission of any Fellow who could not support the old code. These resolutions had been prepared secretly by one faction, to be rushed through when but a minority of the other were present. It seems to have always been the unwritten understanding that no questions of policy like this were to ever be discussed in the Academy. Its doings were to be either purely scientific or purely social. The county medical society was to be the arena where political questions were to be discussed. It was a genuine surprise, then, that these gentlemen should, under any circumstances, bring the matter up in the Academy, but most of all that no public notice was given to that effect. Only the friends of the measure knew as they went to the meeting that anything unusual was to occur. It was the desire to muzzle the liberals and to check all opposition. Those gentlemen who asked for opportunity to fairly discuss the matter on its merits were choked off at once, and with hisses and jeers. And so the resolutions were with indecent haste and by disreputable means adopted. The methods of these gentlemen who thus "got in their votes" were, to say the least, *peculiar*. We fear that if the Irish ever take Ireland it will be by adopting a similar policy, which we accordingly commend for that purpose. The profession and journals of the East are too fond of allowing themselves to misrepresent the doings of their Western colleagues as *crude*, and our Western educational advantages as inferior, and rather insinuate that out West we lack *tone*. After this riot in the metropolis, we feel certain that it can no longer be the high privilege of any member of the Academy, at least, to point the derisive finger westward. We might possibly institute comparisons between it and the Chicago Common Council, or a ward primary in the "bloody Fifth Ward," comparisons not particularly favorable to either side; but the most turbulent medical meeting ever held in the West would seem like a Sunday-school when compared with this session of the Academy. Imagine Dr. Agnew asking: "Then the object is to throttle the Academy?" and Dr. Flint, Jr., replying, "Undoubtedly it is!" Moreover, an amount of ill-feeling and distrust has been engendered by this action which will never subside during the present generation, and now it is being carried into the colleges and hospitals. For instance, Professor Howe, of Bellevue College, rather than recede from his position in favor of the new code when asked to do so, has just tendered his resignation. Rumors of other resignations fill the medical atmosphere; and so it goes, and the end is not yet.—*Weekly Med. Review*.

AMENDMENTS TO THE BY-LAWS OF THE COUNTY SOCIETY.—At a meeting of the Medical Society of the County of New York, held Monday evening, May 28th, Dr. Henry G. Piffard moved the following amendments to the by-laws:

1. No member of this society shall assume any sectarian designation indicating that his practice is based on any special doctrine, dogma, or specified method of treatment.

2. The members of this society shall be governed by the code of ethics adopted by the Medical Society of the State of New York February 6, 1882.

3. No person shall be eligible for membership in this society who is a member of a county society not entitled to representation in the Medical Society of the State of New York.

According to the rules, the first of these proposed amendments

has to lie over to the annual meeting. The second and third, being necessary to bring the by-laws of the county society into accord with those of the State society, were susceptible of immediate action, and were carried unanimously.

ARMY INTELLIGENCE.—*Official List of Changes of Stations and Duties of Officers of the Medical Department, United States Army, from May 19, 1883, to May 26, 1883.*—CAMPBELL, JOHN, Lieutenant Colonel and Surgeon, Medical Director Department of the South. Granted leave of absence for one month, on surgeon's certificate of disability. Par. 3, S. O. 50, Department of the South, May 21, 1883. — BURTON, HENRY G., Captain and Assistant Surgeon. Now awaiting orders at St. Paul, Minn., assigned to temporary duty at Fort A. Lincoln, D. T. Par. 1, S. O. 83, Department of Dakota, May 15, 1883. — PORTER, J. Y., Captain and Assistant Surgeon. Assigned to duty at Fort Davis, Texas. S. O. 49, Department of Texas, May 14, 1883. — SPENCER, WILLIAM G., Captain and Assistant Surgeon. Assigned to duty at Fort Hamilton, N. Y. H. Par. 2, S. O. 83, Department of the East, May 14, 1883. — GORGAS, W. C., First Lieutenant and Assistant Surgeon. Granted leave of absence for one month. Par. 5, S. O. 51, Department of Texas, May 17, 1883. — HOPKINS, WILLIAM E., First Lieutenant and Assistant Surgeon. Assigned to temporary duty at Whipple Barracks, A. T. Par. 2, S. O. 44, Department of Arizona, May 14, 1883. — MACAULEY, CARTER N. B., First Lieutenant and Assistant Surgeon. Assigned to duty at Fort Bennett, D. T. Par. 2, S. O. 83, Department of Dakota, May 15, 1883. — MCCREERY, GEORGE, First Lieutenant and Assistant Surgeon. To report for duty to the commanding officer of troops in the field near San Bernardino Springs, A. T. Par. 1, S. O. 44, Department of Arizona, May 14, 1883. — RAYMOND, H. I., First Lieutenant and Assistant Surgeon. Relieved from duty with troops in the field near San Bernardino Springs, A. T., and ordered to return to his proper station, Fort Apache, A. T. Par. 1, S. O. 44, Department of Arizona, May 14, 1883. — WILSON, GEORGE F., First Lieutenant and Assistant Surgeon. Upon being relieved as Post Surgeon at Fort Townsend, W. T., assigned to duty at Headquarters Department of the Columbia. Par. 2, S. O. 64, Department of the Columbia, May 10, 1883. — WILSON, GEORGE F., First Lieutenant and Assistant Surgeon. To report to First Lieutenant Frederick Schwatka, Third Cavalry, for duty in connection with explorations in the Department of the Columbia. Par. 3, S. O. 64, Department of the Columbia, May 10, 1883.

SOCIETY MEETINGS FOR THE COMING WEEK.—*Monday, June 4th:* Medico-Chirurgical Society of German Physicians; Morrisania Medical Society (private); Utica Medical Library Association. *Tuesday, June 5th:* American Medical Association (Cleveland—first day); Medical Society of the State of Ohio (Cleveland—first day); Medical Society of the County of Columbia, N. Y. (Hudson); Medical Society of the County of Franklin, N. Y.; Medical Society of the County of Herkimer N. Y. (Herkimer—annual); Medical Society of the County of Niagara, N. Y. (Lockport—annual); Medical Society of the County of Orange, N. Y. (Goshen—annual); Medical Society of the County of Saratoga, N. Y. (Ballston Spa—annual); Medical Society of the County of Schoharie, N. Y. (Schoharie Court-House—annual); Medical Society of the County of Ulster, N. Y. (Kingston—annual); Medical Society of the County of Yates, N. Y. (annual); Medical Society of the County of Hudson, N. J.; Medical Society of the County of Warren, N. J.; New York Neurological Society; New York Obstetrical Society (private); Elmira Academy of Medicine; Buffalo Medical Association. *Wednesday, June 6th:* American Medical Association (second day); Medical Society of the State of Ohio (second day); Medical Society of the County of Cattaraugus, N. Y. (Ellicottville—annual); Medical Society of the County of Richmond, N. Y. (Stapleton); Medical Society of the County of Tompkins, N. Y. (Ithaca—annual); Ontario Medical Association (Ontario, Canada). *Thursday, June 7th:* American Medical Association (third day); Medical Society of the State of Ohio (third day); Society of Physicians of the Village of Canandaigua, N. Y. *Friday, June 8th:* American Medical Association (fourth day); Medical Society of the Town of Saugerties, N. Y. *Saturday, June 9th:* New York Medical and Surgical Society (private).

Lectures and Addresses.

LECTURES ON HUMAN AUTOMATISM.

DELIVERED AT THE LOWELL INSTITUTE, BOSTON,

By WILLIAM B. CARPENTER, M. D., LL. D., F. R. S., ETC.

LECTURE V.

Automatism of the Motive Powers.—Cravings and Desires immediately connected with Animal Appetites. Higher Forms of Emotion and Passion connected with Ideational States. Influence of the Will in controlling and directing these by Determinate Fixation of Attention.

THERE is no part of our perceptive experience which can be studied with more interest and value than that which relates to our appreciation of direction, of distance, and especially of solid form; for we have here the means of clearly ascertaining that this is an acquired automatism, and is not, as in the lower animals, directly and immediately intuitive. Every one knows that a chick just hatched, as soon as it can stand upon its legs and run about, will peck at an insect before it, and peck successfully. Most of you must have had the opportunity of observing, on the other hand, that an infant lying in its cradle, when a watch or some other bright object is held up before it, feels about for some time before it grasps it, thus showing that, though it can recognize direction, it does not appreciate distance. But it is by the observation of children, and sometimes of adults, who have obtained sight after having either been born blind or having lost it in early infancy, that we have our best means of studying the manner in which the visual sensations received from any object have to be co-ordinated with those of touch—using this last term, in its most extended sense, as meaning not only the sense of contact with the fingers, but that given by the movement of the hand toward and over the object in “feeling” it. Those of you who have not attended to the subject would scarcely be able to conceive the necessity of this co-ordination, so completely and harmoniously do the two senses work together in our ordinary experience. It was Locke, I think, who put the question whether, if a cube, a sphere, and a pyramid, with the solid forms of which a person born blind had become familiar through his touch, were placed before his eyes when he first acquired distinct vision, he would be at once able to recognize and distinguish their visual images, so as to name each aright. The question was a proof of the sagacity of the questioner; but it could not then be answered with any certainty. Subsequent experience, however, has given us the power of affirming that a person so circumstanced could *not* recognize these or any other forms, whatever might have been his previous tactile familiarity with them, by his sight alone. For several cases have now been carefully observed in which it has become perfectly clear that the visual recognition of an object previously known through the tactile sense can only take place after an experiential combination of the two different orders of sensational experiences into one perception. In the first of these

cases, recorded by the celebrated surgeon Cheselden, within Locke's own time, a young gentleman, intelligent and able to give an account of his own perceptions, had been operated on for congenital cataract, and soon obtained enough sight to be able to describe the appearances of what he saw. As only one eye was operated on, it may be objected that he could not have enjoyed that visual perception of *solidity* which we derive (as I shall presently show you) from the conjoint use of two eyes; but the want of the second eye could not have interfered in the least with his perception of *flat* forms. And it soon became clear that he could not recognize the visual images of objects with which he had been all his life familiar through his touch. Among other things, it was mentioned that he was continually mistaking between a cat and a dog which he had been accustomed to caress; and that, having become rather ashamed of his mistake, he one day took up the cat which he had miscalled, held her in his hands for some time, felt her well over, looking at her the while very intently, and then, putting her down, said: “So, puss, I shall know you another time.” I had myself in early life the opportunity of seeing a case of this kind—that of a very intelligent lad between two and three years old, the child of a farmer near Bristol, England. This child had been accustomed to run about his father's farm-yard, was perfectly familiar with the whole place by feeling, knew every animal in it, and was known by every one; he was a very fine, fearless little fellow, and was so strong and sturdy that it was with great difficulty that he was held down while the operation for cataract was performed. It was very soon apparent, from the clearness of the pupils of his eyes, that he must be receiving impressions of light and of the forms of objects; and this soon showed itself in his accounts of what he saw, but still more in his actions. It was a great delight to him to run round a dark, polished mahogany table, on which some bits of white paper were laid, while blowing these about its surface; the unexpectedness of their movement (which was altogether outside his previous experience), the sense of his own power to produce it, and, I should suppose, the enjoyment he had in the exercise of a sense entirely new to him, making him shout with glee at the effect of each puff. Thus it was clear that he *saw* the papers, and was learning to direct his movements in accordance with his visual sensations. Now, he had been brought from his country home into lodgings in Bristol for the operation to be performed; and those among whom he there was were able to watch his gradual acquirement of the co-ordinating power, in the manner of his going about the house in which he was. He would feel with his hands, and at the same time look with his eyes; but, having acquainted himself well with the place before he obtained sight, he at first preferred the guidance of his hands to that of his eyes, and seemed rather puzzled than helped by his visual experiences. In the course of two or three weeks, however, he found his way about the house perfectly well by his sight alone. When, however, he returned home with good sight, the puzzled condition reappeared. He had such a tactile familiarity with the house, farm-yard, and animals, that it was an obvious perplexity to

him to see them; for he used to shut his eyes in going about, and even continued to do this for some time. He had gradually to learn by experience to combine the visual picture with the perception which he had previously acquired through his touch. But his parents reported that, while he was still obviously puzzled by his sight at his own home, he always used his eyes when he went to a new place—not having got any previous impressions of it to work, as it were, into his perceptive fabric, but gathering his knowledge of it through the two senses at the same time, so as to be constantly weaving together, as it were, the two sets of suggestions into a single complete perception.

There has been a subsequent case of the same kind, operated on by a friend of mine, the late Mr. Critchett, in London: that of a young woman who had been accustomed to work with her needle. She had a little sight previously to the operation, though not enough to enable her to distinguish objects; and though the sight she acquired by it was not very good, it sufficed to enable her to recognize and describe the general forms of objects. Now, it will perhaps rather surprise you to be told that she had not the least idea of what a pair of scissors was when it was held up before her, notwithstanding that she had become perfectly familiar with the implement by having constantly handled it; she was herself much astonished, and accused herself of stupidity; and then, like Cheselden's patient, she took the scissors into her hands and looked at them steadfastly, so as to bring the two sets of sensations into co-ordination.

These facts will show you that we have to go through an education in the combination of our visual and tactile sensations into perceptions of external objects analogous to that which we have to go through in the co-ordination of our muscular movements in the balancing of the body. And, in the one case as in the other, when we have gone through that education, we have no further difficulty in the matter, though we are occasionally liable to fall into error (as I showed you at the close of the last lecture) by trusting to the intimations of our visual sense alone. And it is further clear that it is by this combination that we not only harmonize our visual and tactile perceptions of *figure*, but are led by it to the conception of *solid form*. No retinal picture can of itself call up in the mind any other perception than that of a surface of *two* dimensions. We first learn the existence of *three*, while handling solid objects in our infancy, and turning them in various directions, so that they present different visual aspects. And when we have once learned the relation between solid form as represented in a picture, and solid form as apprehended through the touch, the former, in virtue of that acquired automatism, suggests the latter, the image of any solid that is formed on the retina of one eye only being perceptively interpreted—in virtue of our acquired automatism—as that of an object of three dimensions. But monocular vision, as I shall presently point out to you, may suggest an erroneous interpretation, our perceptive judgment being liable to modification by preconception. And I have now to show you how constantly we depend upon *binocular* vision alike for our perceptions of solid form and for our recognition of the relative distances of near objects.

The late Sir Charles Wheatstone, as you are doubtless aware, was the inventor of the instrument known as the stereoscope. The present form of it, which is to be found, I suppose, in most of your houses, was not its original form. The first stereoscope devised by Wheatstone consisted of a pair of mirrors so placed before the eyes as to bring to them, by reflection, pictures placed one on the right side and the other on the left. Its effect, however, was exactly the same as that of the stereoscope with which you are familiar. Now, when I hold up a solid object—a closed book, for instance—within distinct visual range of both my eyes, I receive two dissimilar retinal images of it, as I at once come to perceive when I close either eye and compare the shape which I then see with that which I see through the second eye when the first is closed. Now, the older writers on vision were quite aware of this difference between the two retinal perspectives of near objects, but supposed that the mind merely unified them. It occurred to Wheatstone, however, that this very dissimilarity might be the basis of that perception of solid form which we *unmistakably* derive from the conjoint use of both eyes; and he devised the original stereoscope as a means of putting this idea to the test. "If," he reasoned, "our perception of solid form is derived from the co-ordination of the two dissimilar retinal perspectives of an actual solid object, it ought to be produced with equal vividness and certainty by throwing upon the two retinae two dissimilar perspective representations of the object, as seen by the right and the left eyes, respectively." Choosing simple geometrical solids as the forms most simply and truthfully represented in linear perspective, he drew two projections of a cube, for example, placed at the distance of a foot in front of the nose, as seen with the right and left eyes respectively, and found that when, by means of his mirror-stereoscope, each perspective was thrown on the corresponding retina, the mental image was that of the projecting solid, not that of either of the dissimilar perspectives.

I shall illustrate this to you by a pair of projections of a different form—a hollow truncated pyramid, which I take as serving also for the illustration of the "conversion of relief" which is produced by the reversal of the two perspectives. It is obvious that if such a pyramid be held up in front of the nose, with its small truncated end nearest the eyes, the observer will see more of its right slope with his right eye, and more of its left slope with his left eye, as shown in the two upper perspectives A and A', so that the two small squares representing the truncated end in each projection will be perspectively approximated to each other. If, on the other hand, the base of the hollow pyramid were turned toward you, so that you would look into its interior, you would see more of its left slope with your right eye (as at B), and more of its right slope with your left eye (as at B'), and the two truncated ends would be perspectively separated from each other, as in the lower pair of projections.

Now, if the upper pair of pictures be projected by the stereoscope on the right and the left retina, respectively, the perception of a *projecting* pyramid is vividly called up; while if the lower pair be similarly projected, a *receding*

pyramid is mentally perceived with equal vividness. Many persons find it possible thus to combine stereoscopic pictures, without the use of the stereoscope, by a kind of squint-

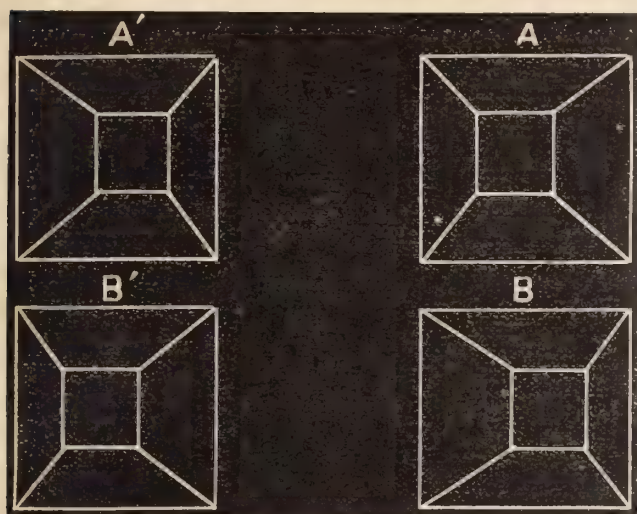


FIG. 1.—PERSPECTIVE PROJECTIONS.

A, A', of a solid, and B, B', of a hollow truncated pyramid, as seen with the right and the left eyes, respectively.

ing, which duplicates the pictures. If the left-hand perspective be thus projected upon the right, and the attention be steadily fixed upon it, a true stereoscopic representation of the solid is obtained. Having accustomed myself to do this with small pictures within a short distance from my eyes, I have found myself able to do it, when seated in various parts of this hall, with the large figures now before you; and I think it likely, therefore, that many of you may be able to obtain the same effect. Now, you will see that the two perspectives of the upper pair are precisely similar to those of the lower pair, only their relative positions being different, so that, if we draw the two figures on separate cards, we get the perception of either the projecting or the receding pyramid by simply changing the place of either of them to the opposite side of the other.

This "conversion of relief" is a very singular and interesting phenomenon, and is clearly the result of that education of our perceptive faculty of which I have spoken. Our minds have become so familiar with the conception of the solid forms of objects, derived from the dissimilarity of the pictures thrown by them upon our two retinae, that a like dissimilarity between two properly projected plane figures, thrown on the right and left eyes, respectively, vividly presents to our minds the object which would produce it. Here, then, is an automatic combination which we are constantly making without the least consciousness of it; and when two stereoscopic figures give us the visual perception of a solid object that is not really present, it is because the simultaneous transmission of the physical impressions produced by these two pictures upon our right and left retina, respectively, produces the same effect upon our sensorium as if these pictures had been formed by our eyes directly from the actual solid object they represent.

I might follow out this subject into considerable detail; in fact, I might very easily give a whole lecture upon it.

It is one that has been a subject of great interest to myself, through my having been in intimate relation with Sir Charles Wheatstone, whose cause I had occasion more than once to take up as the real inventor of the stereoscope, and the real discoverer of the principle that, in the ordinary vision of near objects, it is the mental combination of the two dissimilar perspectives that fall upon our right and left retina which produces the effect of projection, the stereoscope, which enables us to obtain the same effect from two suitable pictures, proving this to be the fact.

Sir Charles Wheatstone made a great number of other most interesting researches upon binocular vision, to one of which I must refer, because it will show you by experimental proof how intimately our perception of the sizes and distances of near objects is connected with the conjoint use of the two eyes. You may say that persons who only see with one eye form the same perceptive judgments on these points as those who use two; and this is to a certain extent true. All those visual perceptions which are originally derived from the co-ordination of the senses of sight and touch can be acquired by a one-eyed as well as by a two-eyed child. But we may easily find out, by experimenting upon ourselves, that, when we use only one eye, we do not possess the same power of *unmistakably* measuring the relative distances of near objects,* or of distinguishing between a solid form and a picture which well represents it, that we have when we use both eyes conjointly. And the perceptive judgments formed by one-eyed persons on these points are open to the same fallacies as are the judgments which we ourselves form in regard to remote objects, our perception of which is in no way advantaged by the conjoint use of both eyes.

One of Sir Charles Wheatstone's ingeniously contrived experiments was directed to the solution of this question: Why is it that, if I hold up a book or any other object at arm's length in front of my eyes, and then bring it to (say) half its previous distance, its size does not seem augmented, although the linear dimensions of its retinal picture must have been doubled so as to equal those of an object of twice its dimensions held at the original distance? It occurred to him that the explanation might lie in an allowance instinctively made for the approximation of the object, which serves to correct the estimate based on the size of the retinal picture, this automatic correction depending on the increased convergence of the axes of our eyes, as the object to which they are directed is brought nearer to them. In order to bring this supposition to the test of experiment, Wheatstone so modified his original reflecting stereoscope that, while the distances of the two pictures from the eyes remain virtually the same (so that the size of their retinal images undergoes no change), the angle of convergence of the optic axes can be made to increase or diminish. This he effected by pivoting the two side-arms that carry the pictures so as to rotate round a central axis fixed between the mirrors; whereby, the pictures being

* Thus, if a large ring be suspended by a string a yard from the eye, and the attempt be made with one eye closed to pass the crooked handle of a walking-stick through it sideways, it will rarely succeed until after several repetitions.

moved round in the circumference of the circle at a constant distance from the center, the angles at which the rays proceeding from them are reflected by the mirrors to the two eyes, respectively, undergo enlargement or reduction, requiring for the reception of those rays and the formation of retinal images of the pictures an increased or diminished convergence of the optic axes. The result is, that the pictures so made to rotate appear to undergo a most remarkable change of dimension, according as the convergence of the optic axes is increased or diminished, although the size of their retinal images remains unchanged. When the arms carrying the pictures are so moved that the angle of convergence is *increased*, the apparent size of the pictures is notably *reduced*, this increase of convergence affecting our perceptive mechanism in the same way that an actual approximation of the object would do; and as the customary enlargement of the retinal picture conformable thereto does not take place, the resultant effect upon the

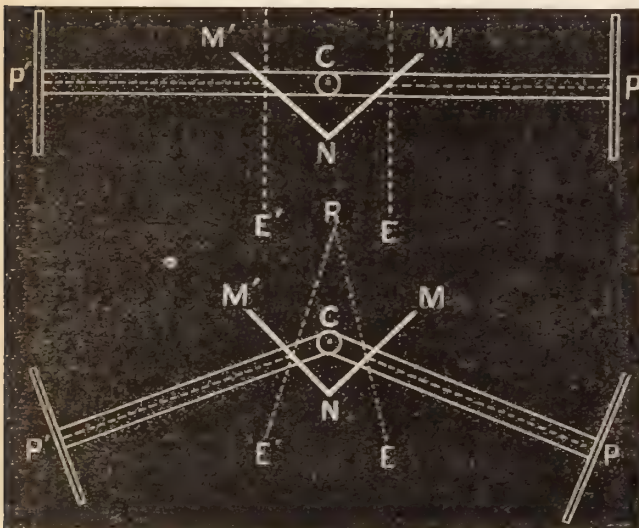


FIG. 2.—DIAGRAMMATIC REPRESENTATION OF WHEATSTONE'S IMPROVED REFLECTING STEREOSCOPE.

The two mirrors, MN and M'N, placed at right angles to each other, receive the rays (marked by the dotted lines) proceeding from the pictures, P P' (carried by the arms CP and CP'), and reflect them to the two eyes in the positions E and E'. When, as in the upper figure, the two arms lie in the same straight line, the rays reflected to the eyes come to them in parallel lines; but when, as in the lower figure, the two arms have been made to rotate round the center, C, so that the pictures come into the positions P and P', the rays reflected to the eyes come to them in lines diverging from a virtual focus, F, toward which the optic axes converge to receive them.

mind is in the contrary sense. And, conversely, when the arms are made to rotate in the other direction, so that the axes of the eyes become *less* convergent, and then parallel, the apparent size of the pictures undergoes a most remarkable *increase*, the effect upon our perceptive mechanism being the same as that which the removal of the pictures to a much greater distance would produce, while the visual picture corresponds to that of a much larger object at the increased distance thus suggested.

Here, then, we have an example, previously quite unsuspected, of the unconscious working out of a simple perceptive resultant by the composition of two factors; and I know no more singular and apposite example of the automatism of our nature than that which is furnished by Sir

Charles Wheatstone's beautiful analysis of this process. You can all make for yourselves a simple experiment, which will give you a corresponding result. If, when you are watching the arrival of a railway-train at a station, you stand sufficiently far back on the platform to take in its *side* view, you will not see any apparent enlargement in its size as it approaches you, because the progressive increase in the dimensions of its retinal image is counterbalanced by the visual perception you simultaneously form of its correspondingly diminished distance. But if you place yourself on, or close to, the line of rail beyond the point where the train is to stop, so as to see it coming in *end on*, it will seem to 'swell out rapidly the nearer it approaches; for, although you know as a matter of fact that it is coming nearer to you, its approximation does not impress itself on your perceptive mechanism, and the suggestion given by the increased size of the retinal image is, therefore, uncompensated by the suggestion of diminished distance, thus giving the effect of apparent enlargement of the object.

I may add a personal experience of my own, which may be of interest to you. My scientific work in the Mediterranean having given me an opportunity, some years ago, of visiting the Pyramids, I found, while driving along the road which leads to them, and having them in full view before me, that, as soon as I was able to distinguish the courses of stone of which they are built, their apparent magnitude underwent a notable diminution. For these courses looked so like brick-work that, although I intellectually knew them to consist of stones from three to four feet high, my perceptive mechanism constructed the whole mass (as it were) on the brick-work scale; and it was not until I stood at the base of the Great Pyramid, and measured the courses of its stones against my own height, that the gigantic dimensions of these wonderful monuments came back to me.

I can scarcely doubt that this automatic formation of perceptive judgments is based on *acquired* experiences; and that its mechanism is laid down during that early stage of our lives in which the co-ordination of the various impressions received through the organs of sense is the first work of the dawning intelligence, the basis being thus laid of all that the individual subsequently comes to know of the world in the midst of which he is placed. Any one who attentively watches the eyes and the actions of an infant in its cradle must see that it is not only educating itself to the appreciation of solid form, but is learning to connect the visual perception of the distances and directions of objects brought near to its eyes with the muscular and tactile measurements it makes in stretching out its hands to grasp them. There is every reason to regard this visual measurement as dependent in the first instance on the *sense* of the convergence of the optic axes; and this notwithstanding that we come by habit to make it without any *conscious* recognition of that convergence; just as, in ordinary walking, we maintain the balance of our bodies without being made aware of that constantly repeated disturbance of it which alarms the young child in his first attempts at biped locomotion.

"The eye," says Carlyle, "sees what it brings the power to see." But it is the eye of the mind, rather than that of

the body, to which this observation most truly applies; and what we call the education of the eye is really the improvement of our power of perceptive recognition of the higher meaning of the sensory impressions which we receive through its instrumentality.

(To be continued.)

Original Communications.

ON SOME COMPOUND ARTICULAR FRACTURES.*

By LEWIS A. STIMSON, M. D.,

PROFESSOR OF PHYSIOLOGY IN THE MEDICAL DEPARTMENT OF THE UNIVERSITY OF THE CITY OF NEW YORK.

THE surgery of the joints has already received in the discussions of this society an attention to which the importance and variety of the lesions with which it deals, the permanent disabilities which these lesions so frequently cause, and the difficulties and embarrassments encountered in their treatment, fully entitle it. Among the more important traumatic lesions, compound fractures hold a prominent place. Equally with other injuries, they have shared in the benefits conferred by the recent great improvements in the treatment of wounds, and, so far as the severer forms are concerned, the rules of treatment have been drawn with sufficient distinctness. You will all, doubtless, remember cases that have been presented here in which formal primary excision of a joint that has been extensively mutilated in all its parts has not only saved the limb, but has also given the patient a new and useful joint. My wish is to ask your attention this evening, not to these extensive injuries in which the question lies between excision and amputation, but to those lesser ones in which, the injury to the bone and soft parts being comparatively slight, the main feature is the implication of the joint, and the therapeutical problem is how best to avoid dangerous suppuration within it—cases in which the surgeon asks himself whether he is justified in striving for preservation of form and function, in seeking to convert the fracture into a simple one, in depending upon drainage and antiseptics to prevent suppuration, or whether he should not rather seek, in partial or complete excision, an inferior result, but one obtained with less risk to the patient. The cases I have now to relate, are those of this class which have come under my care during the past year; they are three in number, one each of the elbow, knee, and ankle.

CASE I.—W. J. K., twenty-eight years old, fell to the ground, April 4, 1882, from the seat of a truck which he was driving, struck upon the palm of his right hand and injured his elbow. He went at once to a small hospital, where, he says, the limb was handled for some time, causing him much pain, and he was then advised by the examiners to seek relief elsewhere. He came to the Presbyterian Hospital, where I saw him five hours after the accident, and recognized a dislocation backward at the elbow of both

bones of the forearm. Ether was administered, at his request, and the dislocation reduced easily. The skin was unbroken.

On further exploration, I found a movable, hard body, about half an inch long, lying under the skin on the outer side of the joint between the head of the radius and the olecranon, which—as the outlines of the olecranon, external condyle, and the accessible portion of the head of the radius were normal—I judged to be the inner portion of the head of the radius broken off when the bone was forced backward past the condyle. Believing that if left in place, or even if restored to its proper place, if that were possible, it would interfere very seriously with the subsequent mobility of the joint, I removed it at once by cutting straight down upon it. The joint was then washed out with a watery solution of carbolic acid, 1 to 40, a short drainage-tube inserted, the wound closed about it with two sutures, and a gauze dressing applied.

The fragment, which I now show, is a portion of the head of the radius, triangular in shape, comprising about one third of the articular surface. It is 17 mm. long, 12 mm. wide, and 8 mm. thick, the latter measurement being in the direction of the longitudinal axis of the bone.

The patient's temperature, which reached 102° the first evening, sank steadily to 98.5° on the morning of the eighth day. The dressing was not changed until the third day, when the tube was removed, and again on the eighth day, when the wound was found almost dry, and when I moved the joint through an arc of about 70°, rotated the wrist without causing pain, and reapplied the dressing. The patient left his bed shortly afterward, without permission, and walked about for two hours. In the evening the joint became painful, the temperature rose to 100.75°, and the next morning to 103°, when I removed the dressing and found no discharge, but the outer side of the joint was tender on pressure, red, and swollen. Reapplied dressing; posterior splint; ice-bag. Two days later (the eleventh day), the wound discharged about two drachms of pus on pressure, and during the following week discharged freely on pressure over the outer side of the elbow. On the nineteenth day I made a counter-opening on the outer side of the arm about three inches above the wound, and on the twenty-fourth day opened a large subcutaneous abscess on the inner side of the elbow, which communicated with the other, apparently by a track passing around posteriorly above the elbow. The flow of pus then diminished rapidly, and the opening closed within a month. As the joint was only slightly movable, I forced it, under ether, on June 8th, getting motion through a range of about 60°. When I last saw the patient, a week or two later, the greater part of this gain had been lost; the joint was free from pain, and the patient resumed work as a driver, promising to report from time to time. I have heard nothing from him since.

[May 23, 1883.—I met this man to-day. Flexion and extension at the elbow are almost complete, but rotation of the forearm is entirely lost. The arm is strong and serviceable.]

CASE II.—Edward C., twenty-two years old, was admitted to the Presbyterian Hospital, February 4, 1883, with

* Read before the New York Surgical Society, May 8, 1883.

a compound fracture of the left patella, caused the same day by a fall from a pillar of the elevated railway which he was attempting to climb while intoxicated. The bone was broken transversely a little below its center, without comminution, and the fracture communicated largely with a clean-cut, transverse wound, one inch and a fourth long, lying directly in front of it; the edges of the wound and the surrounding parts showed no signs of having been bruised. The trousers showed a corresponding transverse cut at the knee. There was also a fracture of the left inferior maxilla, and a long vertical wound of the left cheek. The knee was dressed with carbolyzed gauze, and the limb placed on a single-inclined plane.

The next day, when I first saw the case, I found the wound and the interval between the fragments occupied by a clot, removed it, enlarged the wound for half an inch on the inner side, washed out the joint thoroughly with a 1 to 20 carbolic solution, passed a drainage-tube into the joint on each side through an opening made at about the center of the lateral aspect, brought the fragments together with a silver-wire suture, the loop of which included all the soft parts except the skin in front, but not the articular cartilage, brought the ends out through the incision, closed the wound with sutures, and applied a gauze dressing covered with cotton bound on firmly. Posterior straight splint.

The dressing was changed the next day because of pain, and not again until three days later, when pus was found to have formed under the skin on the outer side, rendering necessary a counter-opening three inches above the one made for the drainage-tube on that side. The patient's general condition was satisfactory; temperature 99°-25°. Three days later (February 12th) the drainage-tubes were removed, and a fresh one inserted on the inner side, under the skin alone, to drain a small cavity which had formed around and above the tube. During the following week the dressing was changed every second or third day, and the patient seemed to be doing well, but his temperature rose every afternoon to 101°, and on the 21st of February he complained of pain on pressure in the lower part of the thigh, which was swollen and rather tense; there was, apparently, no liquid in the joint; the openings yielded only a small amount of thick, creamy pus on pressure. February 24th I opened a large collection of pus which lay on the outer side of the lower portion of the thigh under the vastus externus, and which communicated imperfectly with the opening made by the drainage-tube on that side, and also with the outer angle of the wound. The incision made on this occasion was about six inches above the condyle. Drainage-tube. After this the temperature sank to the normal level, the thigh shrunk to nearly its natural size, and the amount of pus diminished steadily.

March 12th it is noted that the case had progressed satisfactorily during the preceding fortnight; the abscess on the outer side of the thigh had shrunk to the track of the tube, the last portion of which was removed that day; the pouch on the inner side had a capacity of about one ounce; the transverse wound in front of the patella was flat and partly cicatrized. The wire uniting the fragments was cut and re-

moved on that day. The patella was movable laterally, and the knee could be flexed slightly without pain.

March 30th, the dressing, which had been in place eleven days, was changed; all the openings except the two first made for the drainage-tubes were closed, and the anterior wound had nearly cicatrized. The fragments of the patella were united apparently by a fibrous band about one fourth of an inch long, and were movable upon each other.

The patient was discharged from the hospital April 2d, with instructions to wear a posterior splint and report in a fortnight. April 14th everything was found healed except the tube opening on the outer side. Patient walks without a crutch, and can flex the knee ten degrees without pain. Independent mobility of the fragments can not be recognized. On the 30th of April I removed a small fragment of the patella that was found under the skin just above the opening of the drainage-tube on the outer side, and which had kept up suppuration at that point. The patella was now freely movable laterally, and the mobility of the joint was increasing.

CASE III.—Thomas S., forty-seven years old, was admitted to the Presbyterian Hospital, February 17, 1883, with a compound fracture at the left ankle, caused by a fall while walking in the street half an hour before admission. Intoxicated.

The left fibula was broken at a point about three inches above the tip of its malleolus; the internal malleolus was broken off at its base, and this fracture communicated with a transverse wound of the skin directly over it, through which blood was flowing quite freely. A small piece of bone which lay in the wound was removed. The surface of the wound was washed with the carbolic solution, but the wound was not injected. A gauze dressing was applied, with side splints outside. The next day the dressing, which was saturated with blood, was changed. The patient was very tremulous, with slight hallucinations. On the third day the dressings were again changed, the position of the foot corrected, a posterior and an external lateral splint of plaster of Paris applied next the skin, and a new dressing placed over all. This dressing remained in place until February 26th, the tenth day, when the discharge came through. During the first seven days the temperature did not rise above 99°. On the eighth day it rose to 99°·5°, and on the tenth to 100°. The alcoholic symptoms had disappeared by the end of the first week.

March 5th the wound was found to be reduced to a small, flat sore, and a small cotton dressing was substituted for the gauze. March 18th the wound was found entirely healed; a continuous plaster splint was applied from the toes to the knee, and the patient was discharged March 24th at his request. May 7th I learned that the joint was freely movable and painless; the patient had returned to work, and was troubled only by the swelling of the limb during the day.

While in the last case the course was entirely free from complications, and the result as satisfactory as after any simple fracture, and although in the other two the patients' lives were never in danger, and there was never even any anxiety concerning them, except such as is inseparable from

a knowledge of the possibilities in such cases, yet in each recovery was delayed, the result marred, and the chance of the occurrence of dangerous complications notably increased by profuse and prolonged suppuration, and in each the course differed widely from the uneventful, uninterrupted, rapid progress to recovery seen in the third case, which is the ideal of treatment, and which many believe a rigorous use of the complete antiseptic method will insure.

It would be manifestly improper to assume that this difference in result was due solely to differences in the treatment of these cases; such a generalization from so limited a number of cases would be unwarranted; but a discussion of these differences may not be without value, and may bring out such details of experience and expressions of opinion by you as will enable us to formulate more closely rules of treatment to be applied in similar cases. The details of treatment and the differences were as follows:

In no case was the spray used, neither in the first nor in any subsequent dressing. At the first dressing the wound was injected with the carbolic solution in the first two cases; in the third case only the surface of the limb and wound was washed with the same solution. At no subsequent dressing was the wound in either case injected; at the most, a sponge saturated with the solution was squeezed over it. The dressing was the common carbolized gauze, applied dry in a single broad sheet of several thicknesses, or in several narrow strips, overlapping and crossing each other somewhat like those of a Scultetus bandage, for the sake of an easier and more accurate fit, bound on singly with a roller bandage, and sometimes overlaid with a thick layer of cotton to equalize the pressure. The dressing was changed whenever the discharge came through, or whenever pain or a rise of temperature made inspection of the wound desirable. The drainage-tube in the first case was short, reaching, probably, down to the wound in the capsule, but not into the joint. It was removed on the third day. In the second case—fracture of the patella—a drainage-tube was passed into the joint on each side, and left in place for a week. In the third no tube was used.

In the second and third cases the joint was kept completely immobilized upon a splint for several weeks; in the first case it was immobilized for one week, and then, after the occurrence of suppuration, again until the cure was nearly complete.

There was no evidence of putrefaction of the discharge in either case; and, in the two that suppurated, the drainage was efficient, and the pus came, not from the joint, but from cavities that formed in the cellular tissue beneath the skin, and in one beneath the vastus externus. Why did these collections form? Why did suppuration occur at points so distant from the openings in the skin?

In the first case there appears to be a very definite, immediate determining cause—the passive motion communicated on the eighth day, together with the use of the arm immediately afterward in dressing and moving about. Up to this time the patient had been doing very well, the swelling had subsided, and the wound was little more than a superficial sore. The swelling that followed the receipt of the injury was not greater than that commonly observed

immediately after a dislocation of the elbow, and the passive motion was even much less than that which is frequently communicated in the treatment of the same injury. There must, therefore, have been a secondary contributing cause, and that second cause I am disposed to find in the adjoining partly healed track of the drainage-tube, the two acting upon the loose cellular tissue, modified in its nutrition, and irritated by the previous swelling.

In the patella case similar conditions existed; pus formed outside the joint, and escaped alongside the drainage-tubes. The later abscess, which formed under the vastus externus, and required a separate opening, was a simple abscess by proximity or by direct continuation, such as is frequently seen.

The almost uninterrupted series of successes recently obtained in various arthrotomies done for the relief of deformity, specially in genu valgum, which are among the most brilliant triumphs of antiseptic surgery, shows that a compound articular fracture, produced by the surgeon with the minimum of violence and of injury to the surrounding soft parts, can be safely received and promptly repaired. In such cases, as also in those which have here been narrated, the joint is opened and a drainage-tube is commonly used. The differences, therefore, to which I think we must look for an explanation of the difference in the result lie in the greater injury done in the latter to the soft parts, to the swelling, and to the occasional delay in beginning treatment—a delay for which thorough disinfection does not entirely compensate.

Again, if we compare the course of simple dislocation of the elbow with that of the first case, the principal difference is found in the addition in the latter of an incision, the presence of a drainage-tube for forty-eight hours, and the persistence for a few days of the unhealed track of that tube; and this difference was sufficient, with the aid of the slight irritation of motion, to provoke suppuration in the swollen tissues. The inference to be drawn is, I think, that the unbroken skin furnishes a protection for injured or irritated tissues for which antiseptic dressings and treatment are an uncertain substitute, and that we should be cautious in inferring that we can safely deal with such tissues in accordance with experience obtained in operations upon those that are uninjured and unirritated. There is reason to think that, if this elbow had been kept at rest for a few days longer, suppuration would not have taken place; but still, would it not have been better to postpone the operation itself, to have removed the displaced fragment of the head of the radius only after the subsidence of the irritation caused by the dislocation?

Of these three cases, the one that did best was the one that was least interfered with (it was also the one in which the injury was least, but the difference in this respect was not great enough, I think, to account for the difference in the results), and I find in this fact, and in the fundamental success obtained in all, ground for the belief that confidence in modern methods of treating wounds should incline the surgeon rather toward absolute conservatism than toward operative interference; that in cleanliness, drainage, and rest, we have agents efficient in themselves to avert inflam-

mation of the joint, or, failing that, to keep the inflammation within such limits that the risks of an operation, if it should become necessary, are not materially increased; that the safeguards now possessed against the occurrence of formidable complications of wounds should give confidence to expect the comfortable healing of wounds accidentally inflicted, rather than stimulate to the voluntary creation of new ones; and that the broad rule of treatment in cases such as those under consideration should be to avoid excision, except when it is clearly indicated by the extent of the injury, the difficulty of establishing drainage, or by an economical reason arising from the function of the joint involved and the social condition of the patient that may make mobility, even if combined with some insecurity, preferable to ankylosis.

THE CLIMATIC TREATMENT OF PULMONARY CONSUMPTION; REPRESENTING THE OPINIONS OF THE PROFESSION IN REFERENCE TO CLIMATOLOGY AND CONSUMPTION.

By J. HILGARD TYNDALE, M. D.,
NEW YORK.

THE assemblage of morbid phenomena, known as pulmonary consumption, presents itself as the concurrence and co-operation of local inflammation and general infection. In a fully developed case of phthisis, inflammation and infection are associated in all possible degrees of intensity and chronicity.

For our purposes, this clinical division will serve to embrace all forms of consumption: 1. *Superficial processes of the respiratory tract*, a sluggish catarrhal condition, with only moderate changes in the underlying connective tissue; chronicity still limited, as regards duration, to a few months; general health impaired, and forming, not only the original immediate cause, but also the chief factor by which the present inflammatory condition is kept up.

2. *Chronic cavities*, with more or less peripheral infiltration, and infiltrations with bronchiectasis, both occurring either as slowly progressive from their incipency, or as remnants of past acute inflammations. In other words, gradual excavations and condensations, or the remains of acute processes, which have caused exulceration and shrinkage.

3. *The colliquative condition* of any form of phthisis.

Acute intermittent and remittent exacerbations form part of the history of most cases. Now, these conditions may attack the originally robust or the hereditarily vulnerable; the latter those with irritable skins and mucous membranes. As between the robust and the irritable there are, of course, numerous shades of resisting power.

In the climatic treatment of consumption we aim to put the patient under such climatic influences as will tend to counteract both infection and inflammation where they exist together, or either separately, where the recognition of this fact is possible.

The chief constituents of climate are:

1. Barometric pressure—differing at various *elevations* and with different degrees of humidity.

2. Temperature—mean degrees and *equability*.

3. Humidity—relative *dryness*.

What, now, is an atmosphere suitable to phthisis? The three prime requirements of such a climate are a certain elevation, more or less dryness, and reasonable equability of temperature, coupled with the uniform absence of extremes of temperature—excessive heat or cold. Out of the relations of these three constituents to each other we may formulate this great general rule: *Whichever constituent may be the most necessary to prescribe—dryness, elevation, or equability—neither must be permitted to be coupled with a mean temperature of extremes—heat or cold.*

What is wanted is an aseptic atmosphere at from sea-level to high altitude, in which various degrees of dryness and equability of temperature are found in the company of warmth or coolness.

Dryness is the proper antidotal element for infection.

Equability is the antidotal element for irritation and consequent inflammation.

We know that: 1. Equability precludes cold.

2. Dryness precludes heat and excessive moisture.

Upon this basis a climate should be selected in which either dryness or equability predominates. When thus we have judged *objectively* of the preponderance of local inflammation or general infection, we may judge *subjectively*, by consulting the patient with regard to his feelings and preferences for warm or cold weather generally. The degrees of temperature are to be chosen *in accordance with the sensations of the patient*.

The irritable, of ready vulnerability, are not able to bear a stimulus to increased functional activity, such as is found in a dry and rarefied atmosphere. What in average cases is a stimulation to increased digestion, assimilation, and sanguification, is to them an irritation; a frequent cause of acute exacerbations. This rule applies, therefore, to the acute exacerbations also, since they result from a sudden or persistent co-existence of cold and moisture, and need the opposite conditions—warmth and moderate dryness.

Patients in the colliquative stage should remain at home.

In order to ascertain the opinions of those of the profession who have given more or less attention to climatology, I addressed a circular letter to them. Eighty-six answers were received from all parts of the country. The best view of their opinions is had by reviewing the constituents of climate *seriatim*.

1. ELEVATION.

For convenience' sake, we recognize low, medium, and high altitudes. The "line of immunity" is rather arbitrarily fixed at six thousand feet in our latitudes. The fact is, that immunity is to be found at such elevations where, aside from dryness, there is the nearest possible approach to equability. A moment's reflection will then explain why the elevation for immunity increases toward the equator. It is because there is no difficulty in obtaining equability in the tropical zone, but it is in the bad company of moisture; and if, as between dryness and equability, the demand for dryness should be satisfied first, it will require additional (and under the equator considerable) elevation to meet this demand.

Coolness and dryness increase with elevation. Pressure of the air-column is diminished. With a diluted air and little moisture to pass through, the sun's rays heat the earth rapidly; but for the same reason, which prevents the formation of a moisture diaphragm, the heat is radiated skyward at night. Hence, equability is not found with elevation and dryness.

The question was asked as to the value of elevation as a curative agent, and if so because we expect to find fresh air in abundance only, or because the atmosphere is relatively free from disease germs—an aseptic atmosphere.

Sixty-seven correspondents ascribed no value to elevation whatsoever.

Nineteen ascribed benefit to the absence of organic matter. We do know, however, that at uninhabited elevations the germ-breeding elements of heat and moisture are not only absent and dryness and coolness present, but Professor Tyndall and others have shown that bacteria, floating in dust and attaching themselves to moist surfaces, are found only at low altitude and more or less high temperature.

Dr. Talbot Jones, St. Paul: "All the organic processes are much more active in such situations than in those of less elevations. There is increased and coincident construction and destruction of the tissues, and the processes of digestion, respiration, sanguification, and assimilation are increased, which promote body gain and strength.

"It is far more rational to assume that the resultant increased vital energy and health promotion observed in these elevations are more important factors in the arrest of phthisis than a mere aseptic condition of the atmosphere."

Dr. H. I. Bowditch, Boston (referring to elevation, asepsis, and reduced pressure of air-column in one): "Theoretical entirely, as I deem them, and therefore my opinion from actual experience, or from the *proof* offered by others, is not worth a straw. Ergo, I shall not pretend to give it as containing even the smallest quantity of truth."

Dr. Deering J. Roberts, Nashville, Tenn.: "Altitude, in addition to purity of atmosphere, gives a surety of freedom from subsoil moisture."

Dr. H. V. M. Miller, Atlanta, Ga.: "These advantages could be secured in mid-ocean, on broad prairies, or sandy deserts."

Dr. Sterling Loving, Columbus, Ohio: "Here we are obliged to consider carefully the question of the presence or absence of malaria."

Dr. William T. Plant, Syracuse, N. Y.: "I incline to the 'fresh air in abundance' theory rather than to the aseptic."

Dr. L. P. Yandell, Louisville, Ky.: "Because less dampness, less miasm is likely there."

Dr. S. M. Bemiss, New Orleans: "Abundant fresh air in motion. Know nothing of 'aseptic' air in consumption. Butchers are very exempt."

Is there reason to believe that *reduced pressure of the air-column*, such as exists at considerable elevations, has any decided therapeutical effect upon the organism, independent of the purity or other qualities of the atmosphere?

We know that at an elevation of three and a half miles

the air is twice as rarefied as at sea-level, four times at seven miles, sixteen times at fourteen miles, etc.

The surface of a man's body may be said to be sixteen square feet, and the pressure of the air-column upon a square centimetre of surface, at mean barometric pressure, 1,033 grammes. At an elevation of 6,000 feet, the surface of the human body is relieved of a pressure of three pounds to the square inch, which is equal to 7,000 pounds for the whole man.

The respiratory mucous membrane of the lung has been calculated by Lieberkühn to be 1,400 square feet. Whether at high altitudes the reduced pressure leads to more *frequent* or more *profound* inspirations; whether *more* or *less oxygen* is taken in during inspiration, on account of the fact that there is less oxygen in a given measure of air—these questions are clearly individual. The attempt of the human organism to adapt itself to the change is: That at first there is *increase of functional activity*, both as regards the heart's action and respiration; and that this is in time followed by *organic changes*, manifested in the heart by regular rhythm and strong impulse (normal hypertrophy), and in the lungs by expansion involving the thorax.

Drs. Williams and Weber, of London, have published some observations in reference to heart's action and lung expansion at altitudes. Dr. Denison, of Colorado, has made similar observations. The temporary and lasting effects of reduced pressure will no doubt soon be noted and recorded in hundreds of cases.

The great majority of my correspondents attributed *no* beneficial effects to reduced pressure of the air-column.

Dr. I. N. Danforth, Chicago: "In some cases it appears to be of benefit, and in some it is injurious; in most cases negative."

Dr. P. Gervais Robinson, St. Louis: "It is reasonable, in my opinion, to suppose that in high elevations some benefit may accrue in *incipient catarrhal phthisis* from the greater 'besoin de respirer,' which, by more frequent and more forcible inspiration, would tend to expand thoroughly the lobules affected."

Dr. Alonzo B. Palmer, Ann Arbor, Mich. (referred to his "Practice of Medicine"): "But no condition has as much influence upon phthisis as *elevation above the sea-level*. . . . The most marked condition of an elevated situation is the rarity of the air and the diminution of atmospheric pressure."

Of the effects: "Deeper and more rapid respiratory movements."

Dr. G. M. Garland, Boston: "Reduced air pressure does have an effect upon the organism, sometimes favorable, sometimes otherwise, irrespective of purity. The efforts at respiration are more vigorous and the lung is more thoroughly ventilated; the chest expands in girth at high elevations."

Dr. N. S. Davis, Chicago: "Yes, it causes, unconsciously, greater activity in the respiratory muscles, to expand the chest, to get more air into it."

Dr. Beverley Robinson, New York: "May lessen tendency to certain visceral hyperæmias—even though it augments congestion of bronchi."

Dr. Deering J. Roberts, Nashville, Tenn.: "In its rarity it seems to have the effect of a stimulus—especially to the nervous system."

Dr. H. D. Didama, Syracuse, N. Y.: "In incipient cases with bronchial catarrh in apex, a mountain elevation and proper instructions will, *by securing chest expansion*, do good."

Dr. M. F. Coomes, Louisville, Ky.: "The only special claim for a great elevation is that the rarity of the atmosphere will necessarily expand the lungs more thoroughly than that of ordinary elevations; and, as a natural consequence, would tend to prevent further deposit of tubercular matter. The respiratory effort is certainly increased, and, of course, with it the circulatory system is rendered more active; appetite is increased, and digestion as well."

Dr. H. V. M. Miller, Atlanta, Ga.: "The leading mark of the tuberculous diathesis is confined breathing space, often a congenital narrowness of the chest, insufficient lung expansion. As tubercles begin to be deposited, they impinge more and more upon the breathing space, and lessen day by day the office of the lungs in the formation and purification of the blood and its elements. The progress of the disease is measured by the progressive solidification of the lung, and no means of cure deserves confidence which does not seek to prevent or remove this impairment of an essentially vital function. This fact is recognized when patients are directed to exercise the voluntary muscles subservient to respiration, to employ vigorously the muscles attached to the chest, that they may be developed and the chest expanded, exercising the voice or the spirometer, swimming, rowing. All, it is hoped, may and doubtless do become beneficial; but how little time can be devoted to one or all of these!

"Each thousand feet of elevation above the sea-level, it is estimated, removes one thousand pounds of atmospheric pressure from a man's body, and the rarity of the air is in like proportion greater, so that with every breathing effort there is corresponding increase of expansion of the lungs to supply the needed oxygen. This is an exercise which is continuous, sleeping and waking, and, theoretically, ought to lead to the development or restoration of greater breathing space, and all the important physiological results dependent upon it. Experience has demonstrated the value of the practice, if not the correctness of the explanation. A large and increasing number of instances where, by the spirometer, by actual measurement of the chest, the removal of tuberculous deposits already existing, increases of bodily weight and vigor, and restoration to health, have shown that a longer or shorter sojourn in elevated regions is extremely useful."

2. HUMIDITY.

The amount of moisture suspended in the air is the most important constituent of climate. When the air is saturated, we say it contains one hundred per cent.; fifty per cent. is one half saturation, and all humidity is recorded with reference to its percentage.

A few facts are to be borne in mind:

1. That the air is capable of holding moisture according

to its temperature. Heat expands air and increases its capacity for suspending moisture.

2. That humidity decreases with increasing elevation, on account of vapor being diffused into greater space. Or, if we only remember that the greatest amount of moisture is over its source (large bodies of water, the ocean) and near it, at the sea-shore, and the farther we get inland the farther are we removed from the source, it will be agreed that my statement of this fact is the correct one, namely:

Humidity decreases with increasing distance from the chief sources of moisture, whether that distance be horizontal or vertical, far inland or at high altitude.

Where, far inland, position and elevation above sea-level co-exist, the distance from great bodies of water is the number of miles overland plus the elevation above the ground; in other words, the altitude is simply a vertical addition to the horizontal distance.

As to dryness as a potent factor in a suitable climate for the majority of consumptives, the question as to its potency was affirmatively by nearly every one, with some qualifications as to degree and as to the class of cases in which a moderate degree of moisture was desirable.

The fact (which to my mind is the key-note to the question) that moderate moisture is desirable only because we look for *equability of temperature*, and can not have *equability without some moisture superadded*, seems not to have attracted the attention of any one.

Dr. Charles Denison, Denver, Colorado: "Yes, decidedly (see chapter on "Humidity," "Rocky Mountain Health Resorts," pages 60 to 67). Practically, experience sustains this positive answer, and, theoretically, I think it would be generally admitted by observant physicians that the increased proportion of moisture exhaled to that inhaled—i. e., the increased facility with which impurities are thrown off through increased exhalation—would be a remedial agent of no mean value in most chronic lung diseases."

Dr. Alfred Stillé, Philadelphia: "So far as I know, tubercular consumption is almost unknown in the driest climates."

Dr. J. Solis Cohen, Philadelphia: "The point upon which I desire to lay most stress is this: That sea air should be rigorously avoided as soon as there are any signs of softening in the lungs or ulceration in the larynx. My habit has been to study carefully each individual case; to notice how the different seasons and atmospheric conditions affected the patient when at home, and to endeavor to find a climate corresponding with the indications thus obtained. I have thus found great divergence of conditions in different cases, which will, I think, account for the divergence of professional opinion which we notice. An important point of inquiry would be as to the health of the children of consumptive parents, born or bred at the different resorts, supposing, of course, the parents to have permanently located; otherwise the statistics would be valueless. I have had quite a number of these, now young adults, sent to me of late years, with different forms of laryngeal and pulmonary complaints, from Minnesota. *Sea air before softening; mountain air after softening.* Do not recommend sedative climates, but consider dryness a potent factor, and, in the

majority of cases, a cold temperature; but this must be governed by the comparative comfort of the patient under similar conditions at home (New Mexico, Colorado, California). Sent patients to Lakewood, N. J., lately; to Aiken, Southern California, Mexico, and the Adirondacks even in winter. A patient should make arrangements for permanent residence in whatever locality he finds his health the best."

Dr. H. von Sweringen, Fort Wayne, Ind.: "The lungs, we know, are constantly giving off aqueous vapor. It is a fact in consequence that, when the atmosphere is saturated with moisture, its power of conducting off this vapor will be proportionally diminished, and that an accumulation of fluid may thus take place in the lungs. The air may also be so dry as to have an increased capacity for moisture, and to carry off the expired air or vapor with unusual avidity; in *either* of these cases the excretions from the lungs will be materially influenced, whether to the benefit or disadvantage of the consumptive patient is the question which you are endeavoring to settle among other inquiries. With you I am inclined to favor a *dry* climate. We frequently observe remarkable changes occur in the character of a cough, at the breaking-up of a frost; in some cases the expectoration will be checked, and in others promoted by a sudden change from a dry to a moist atmosphere. I have no doubt that in some cases the rapid transition from moisture to dryness will occasion a marked effect upon consumption, and, again, that others, confined in artificially warmed apartments, are benefited by evaporating a certain amount of water whenever the external air has become excessively dry."

Dr. H. I. Bowditch: "*Most certainly.* I have removed persons (and every day prescribe the same for persons consulting me) from houses on low, damp land. Even houses with damp cellars should not be lived in."

Dr. Frederick I. Knight, Boston: "Every case has to be considered on its own merits. I have had many cases of early disease make wonderful recovery in Colorado."

Dr. James T. Whittaker, Cincinnati, Ohio: "Dryness is a most potent factor, because the specific cause of the disease develops best in, and absolutely requires, moisture."

Dr. H. D. Didama: "Not the dryness *per se*, but because it is usually associated with sunshine."

Dr. G. Baumgarten, St. Louis: "Yes; but, when united with considerable altitude, the effect upon certain persons—briefly described as nervous—is very bad."

3. TEMPERATURE.

In the relation of temperature to consumption we have two facts to consider: *a.* The mean monthly and yearly degree of heat, which gives us an idea as to whether the climate may be called hot, warm, cool, or cold. *b.* Monthly and annual range (difference between the very lowest and the very highest readings which have occurred in that time), from which we gather knowledge as to the stability, the *equability of temperature*; and in connection with this we note diurnal ranges as indicating daily fluctuation.

Broadly speaking, it may be said that heat and warmth are intimately associated with moisture, and cold and coolness

with more or less dryness. For this reason, no climate should be spoken of as being hot or cold except in connection with other elements. "Hot" and "cold" relate to sensations, and are not a *constituent* of climate. Granted that equability is the *prime* beneficial element in certain cases; then, at least, let a locality be selected where, as between equability and relative humidity, the lowest degree of humidity attainable is associated with reasonable equability of temperature, and *not great equability with excessive moisture*, which, as a rule, go together.

It has been abundantly proved by Dr. C. T. Williams,* and since corroborated by experiences of others, that, "taking collectively all forms and degrees of phthisis, the dry climates are the most likely to arrest the disease."

The tolerance of the lung against variously tempered air is much greater than is commonly supposed. Heidenhain has shown that this tolerance ranges over one hundred degrees. As in the effects of altitude, this is likewise in a patient a matter of accommodation, and is that which is generally called *acclimatization*.

Dr. Charles Denison: "Equability is too much associated with dampness of atmosphere. I consider equability of temperature a valuable climatic attribute in some instances, while it is an almost impossible constituent—because opposed to elevation and dryness—in the health resort most suitable for the majority of first-stage consumptives.

"You probably ask, In what instances is an equable and rather moist climate desirable? In a general way I would reply, In irritable heart, irritable cavity, in extensive catarrhal phthisis, and especially in neurotic patients if progressive softening, advanced age, or being in the female sex, augur an unfavorable issue.

"As the most desirable type of an equable temperature climate, I refer to such portions of Southern California as Los Angeles (Sierra Madre Villa near by, low elevation, 1,500 feet) and Santa Barbara (Ojai Valley not far distant, containing several places of moderate elevation). The bountiful supply of sunshine, and the natural protection from north winds, furnished by the coast range, together with a temperature which invites to an out-door life at all seasons of the year, make the last-mentioned region an especially favorable locality for the serious or irritable cases enumerated above."

The following atmospheric constituents, with their variations, are dependent upon, and, so to speak, the offspring of pressure, temperature, and humidity:

1. Winds—dependent upon pressure and temperature.
2. Intensity of sunlight—upon pressure and humidity.
3. Electricity—upon humidity and temperature.

And out of the relations of these last three to the first result: Precipitation, the production of ozone, and mechanical and organic admixtures of the atmosphere.

Both advocates of equability and of dryness justly claim *abundance* of sunlight, a majority of clear days in the year. But the *intensity* of the sun-bath is not by any means the same in equable and dry, elevated climates. In equable climates the sun's rays are obstructed by moisture plus the

* Lettsomian Lectures for 1876. "The Influence of Climate in the Prevention and Treatment of Pulmonary Consumption."

greater density of the atmosphere; at altitudes moisture is more than half reduced (often one quarter), and the density of the air gives way to rarity. Hence, the sun's rays have ready access to the earth's crust, and in mountainous countries this crust presents an increased surface in the upturned sides of the mountains. Our knowledge of the effects of the above constituents on the human organism is not such as to have required any questions or answers.

Next to the constituents of climate, which are dependent upon conditions of soil and atmosphere, the artificial admixtures of the air (as distinguished from moisture, a normal ingredient) are inorganic and organic. Inorganic as dust, organic as animal and vegetable ferments. Dust is chiefly coexistent with dryness, while germs flourish in the combination of moisture and heat.*

Subsoil moisture is the most prominent cause of the development of phthisis. The credit of establishing this fact is entirely due to Professor Henry I. Bowditch, of Boston, who has also established the lasting fact that "artificial drying of the soil by subsoil drainage, etc., has actually caused a decrease of the death rate by phthisis in places where such sanitary measures have been adopted.†

Subsoil moisture may simply be classed as furnishing one of the admixtures of the atmosphere, in my opinion, in this: that its ill effects arise from furnishing surplus moisture to the lower strata of the atmosphere. Again, in the presence of persistent heat, it is the breeding ground for micro-organisms. The facts may be formulated thus: when *dry*, the soil furnishes the mechanically irritating dust; when *moist*, moisture, gases, and micro-organisms.

SEA- AND MOUNTAIN-AIR.

In accordance with the natural divisions of our globe into sea and land, climates are often spoken of as *marine* and *continental*. A limited diurnal and annual range of temperature is characteristic of marine climates, enjoying, as they do, the equalizing influence of watery vapor; a lack of this influence and great range of temperature characterizes distances from large bodies of water.

The great element of marine climates is *equability*. The great element of continental climates is *dryness*. Elevation (our third constituent) may be found upon islands in mid-ocean, as well as far inland; this constituent, therefore, may be common to marine and continental climates.

The chief causes of consumption—subsoil moisture and micro-germs—are found at considerable distance from lowlands and the wholesale aggregation of higher living organisms—the human race. This distance by which an aseptic condition of the atmosphere is insured may be horizontal, out upon the *high seas*; or vertical, up among *mountain-plateaus*. I put it down now, as a maxim, *that the ultimate aim of all phthisical patients should be to reach high alti-*

tudes. Some cases are fit for it from the start; others require lesser altitude at first, while *both* require dryness; still others have irritability of sensation (in skin and mucous membranes), and low-grade inflammations as so prominent a feature of their case that they should first go through the preparatory school of equability of temperature. My argument is this:

1. That the vast majority of consumptives are tubercular with accompanying inflammation, and not *vice versa*.

2. That tubercular consumption is a product of the tropics; of the combination of heat and moisture, which encourage venous stagnation (hyperæmia) and embolism of lung capillaries.

3. That, therefore, the two enemies to be avoided are persistent heat and excessive moisture.

4. That this avoidance requires distance from tropical latitude on the one hand, to avoid heat; and distance from the father of moisture, the ocean, on the other.

5. This distance takes us inland, either into the middle of our continent, or up into the frigid zone. The greater the distance the better.

6. The frigid zone combines excessive cold with fluctuations of temperature and some moisture—the progenitors of acute inflammation of the air-passages.

7. That, if the *horizontal* distance be not great enough to keep out of additional danger, we must look for the extension of distance in the *vertical* direction—at mountain heights—at *far inland high altitudes*.

A great factor in the equalization of temperature is the Gulf Stream. Its effects on our coasts (Japanese current) are felt in Alaska, Puget Sound, and parts of California.

SEDATIVE AND TONIC CLIMATES.

A sedative, soothing, so-called "mild" climate has *equability of temperature* as its chief pillar, and may be either moderately dry and moderately equable, or very equable and very moist. The reigning temperature may be hot, warm, or cool. Such climates exist on numerous islands in the temperate and torrid zones—Madeira, Canaries, Azores, Bermudas; at peninsulas in southern latitudes, of which Florida is an example; and at the sea-coast of more or less southern latitude, where the effects of the Gulf Stream are felt—coast of southern California.

A tonic, sthenic, so-called "invigorating" climate, the effects of which are also denominated as "bracing," has *dryness with more or less elevation* as its pillar, and may be moderately dry or very dry, far inland without elevation, or at moderate or high altitude. Such climates in southern latitudes must have considerable altitude to insure a reasonable degree of coolness, while in northern latitudes low, medium, and high altitudes are cool, and even cold. In no latitude of the temperate zone is equability of temperature one element of a sthenic climate, because it presupposes moisture. In our country sthenic climate is represented by all the medium and high altitudes of North Carolina, Georgia, Tennessee, Colorado, New Mexico, Arizona, Texas, and California, and the far inland States in northern latitude—Minnesota and adjoining sections.

These terms sedative, tonic, etc., have no especial sig-

* "Floating Matter of the Air in Relation to Putrefaction and Infection." By John Tyndall, F. R. S., 1882.

† "Topographical Distribution and Local Origin of Consumption in Massachusetts." By H. I. Bowditch, M. D. "Medical Communications of the Massachusetts Medical Society," vol. x, No. 2, 1862.

"Consumption in New England and Elsewhere, or, Soil Moisture one of its Chief Causes," Boston, 1868.

nificance. It is the old fault of calling climates by the sensations they convey, instead of defining their constituents of barometric pressure, temperature, and humidity.

For the same reason the answers to the next question—"To what particular region or health station do you direct your patients suffering from pulmonary consumption?"—will be attached to the foregoing.

NEW ENGLAND STATES.

Dr. C. P. Frost, Hanover, N. H.: "Sedative climates not suitable for consumption. I prefer northern Georgia or California. In the proper season, the Adirondack region seems beneficial."

Dr. Henry I. Bowditch, Boston: "I have no doubt the *sea-coast* of New England, and possibly of the Atlantic still farther south, is *always injurious to the consumptive at any period of the disease*. I have no doubt that *early stages*—say, perhaps, crackling under one clavicle, and a little difference on percussion—are sometimes *wholly cured* by a *permanent residence in Minnesota* or the mountains of Colorado. I think Fayal, or some *island in the ocean*, has been at times of service. . . . I prefer the so-called 'sthenic' climate, and I think my experience sustains me. . . . I decide very frequently according to the social relations as well as the disease. The fact that a person knows by experience, or has friends, or can do business in a certain place, will induce me to choose a northern or southern climate. I send now, *generally*, to Colorado, or some of the high places in the West or Southwest. I tell a patient he must stay summer and winter, or, in other words, must live where I send him. If he returns to the East, he will very frequently fall back and die—even if he appear well of all *general and local signs when examined on his return*. As to general results: *Good* if sent when *few signs*, and the after-life be spent in the new place for many years, or, if possible, for life. *Almost certainly bad* if sent when gurgling or strong bronchial respiration, etc., exist, intimating severe lesion of the lung."

Dr. R. H. Fitz, Boston: "My view at present with regard to consumption and climate is, that in the earlier dates uniform temperature—cool, rather than warm—high elevations, and dry air, with physical and mental comforts, are essential. In the advanced stages, uniform temperature—warm, rather than cool—with moderately moist air, gives comfort to most patients."

Dr. G. M. Garland, Boston: "I should prefer a sedative climate where there is a dry, hard cough, with a tendency to hæmorrhage, but before the disease manifests many physical signs of destruction of lung-tissue. Winter in Florida; summer in the North or West (Kansas or Colorado)."

Dr. Charles H. Fisher, Providence, R. I.: "The higher and drier the locality above sea-level the better, *providing always* the most equable climate, the most uniform mean temperature (between 60° and 70° Fahr.), and allowing constant respiration of open air. . . . Sedative climate for advanced cases; sthenic climate for incipient ones—parts of Minnesota, Colorado, California. Advanced cases, northern latitude for summer, southern for winter."

(To be continued.)

DOUBLE IRRIGATION AND DRAINAGE TUBES.

By HENRY O. MARCY, M. D.,

BOSTON.

I devised and had made for me in 1880, by the Davidson Rubber Co., of Boston, double tubes of pure gum, prepared in glass molds in a manner similar to the rubber catheter.

My purpose was to furnish a double tube of flexible material, at a moderate cost, and thereby secure the advantages of irrigation by a continuous current, through an instrument safe in its application.

These were of the same perfect finish and flexibility as the catheter, and varied in diameter, French scale, from No. 18 to No. 40, and in length from fourteen to twenty-four inches.

They were exhibited in the Surgical Section of the American Medical Association in 1881, and a brief statement of my experience in their use was published in the Transactions for that year. They were also presented to the International Medical Congress held at London in 1881, and are described and figured in the Transactions.

Since this time they have been widely known to the profession, and to a considerable degree are in general use. The purpose of this brief paper is to call attention to the fact that Messrs. Tiemann & Co., of New York, have improved the smaller varieties of these tubes (those numbers suitable for use in the male bladder) by furnishing a probe point and the "velvet eye" peculiar to their excellent catheters. This enables the instrument to be made smaller, since the direct current requires only a small stream. The efferent tube is relatively larger, and thus overstrain upon the bladder is prevented.

At my suggestion, attachments have been made so that the tubes may be lengthened at will. As now made and sold by Messrs. Tiemann & Co., these tubes appear very nearly perfection, and are furnished at a much less price than formerly.

They are of the same easy introduction into the bladder as the now universally used rubber catheter. As a rule, the patient requires no assistant. The ordinary fountain syringe is filled with the fluid desired, and placed at a height usually only sufficient to secure the continued steady outflow after the bladder has been somewhat distended. Pain or discomfort indicates that the hydrostatic pressure is too great. The prolonged efferent tube conducts the fluid into a receptacle provided therefor, while the patient is usually most comfortable in the semi-reclining position, an easy-chair of almost any description serving well the purpose.

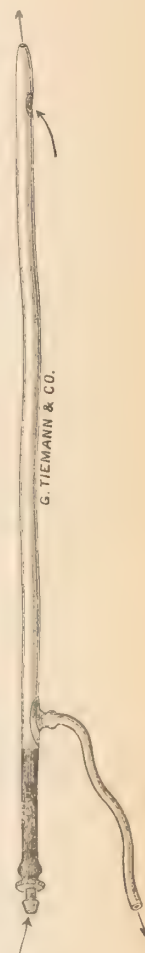


FIG. 1.

After the patient becomes accustomed to the irrigation of the bladder, he gladly avails himself of the newspaper or an entertaining book, and passes, with very little discomfort, the half-hour usually required to give the douche as thus applied. A continued experience of three years in a very considerable number of cases of cystitis, both acute and chronic, leads me to feel that the value placed upon this means of medication in my earlier publications was not overestimated.

In cystitis dependent upon retention of urine from enlarged prostate, although not curative, relief is very great. In a very considerable number of cases the micrococci and bacilli universally accompanying, if not causing cystitis, have disappeared. Water used at a temperature as hot as comfortable, the heat-point varying considerably with different individuals, has been used, but more often a weak antiseptic solution of boric acid, carbolic acid, or Listerine has been employed.

The secondary effect of heat has proved very efficacious in cases of hæmorrhage from the bladder; in one intractable case the current was continued without interruption for more than twenty-four hours; however, clots in the bladder are likely to be a source of trouble from the occlusion thereby of the efferent tube. Usually in severe cases of cystitis the douche has been used once or twice daily, and continued about half an hour.

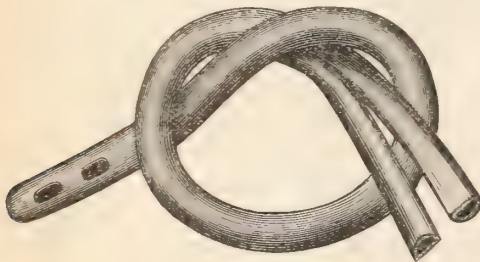


FIG. 2.

The larger tubes are, perhaps, best as made in their original form (see Fig. 2).

The tube of fourteen inches, size No. 40, is a safe and effective instrument for the cleansing and disinfecting of the uterine cavity in puerperal septicæmia. The caliber and fenestræ are of considerable size, and allow of the easy removal of decomposing débris, while the character of the tube reduces the danger of injury to the organ to the minimum.

In strictures of the rectum or inflammatory conditions of the pelvic organs the relief and benefit of the continued rectal douche have been very marked. In these cases the tube enters the colon, and the hot water is siphoned in without strain upon the intestinal wall at a point above the constricted or inflamed part. Not only is the large intestine emptied of its gas and contents, and the tenesmus and pain removed, but the prolonged effect of the continuous current is very efficacious in reducing the congestive and inflammatory processes (e. g., dysentery).

The comfort and advantage have been equally marked after various pelvic surgical operations, where gaseous distensions of the colon are often so troublesome.

The use of the double current through such a soft, flexible tube renders it easy and effectual to cleanse the pleural cavity in empyema, to wash out long, irregular sinuses, deep gun-shot wounds, where necrosis of tissue must follow the track of the bullet, and where shreds of clothing, small pieces of bone, or other extraneous materials are retained.

In nutritive enemas I have felt that a very considerable gain has followed by the introduction of the fluids thus high in the transverse colon, and can but recommend their use for further trial.

The larger and longer tubes are of easy application for the evacuation of the stomach. A tube of this kind and an ordinary rubber syringe are all that is required for the speedy and effective emptying of the stomach; artificial feeding is also by this means easily accomplished. This we have had recourse to in a number of instances with children as well as adults.

It is usually well to lengthen the efferent end, or both, by connections with rubber tubing, as thought most convenient.

Correspondence.

LETTER FROM BOSTON.

THE STATE HOSPITAL AND ALMSHOUSE AT TEWKSBURY.

Boston, May 29, 1883.

UNDER the head of "Miscellany" you have several times referred to the "Tewksbury Investigation." Let me occupy a little more space on the subject than you have heretofore devoted to it. There has for a long time been a feeling in the minds of those who have been brought into official relations with the hospital at Tewksbury that matters were not conducted as they should be; and as long ago as 1874 the late Dr. George Derby, at that time secretary of the State Board of Health, had a conversation with one of the best hospital managers in the country, and told him what the Board of Health wanted to do if they could get control of the institution; and asked if he, the manager, could recommend any young man, familiar with hospital management, who would take hold, with the support of the board, and make the institution a credit to the State. Unfortunately, the death of Dr. Derby, which took place shortly afterward, prevented the idea from being carried into execution.

In 1879 the Hon. Thomas Talbot, in his inaugural address to the Legislature, recommended several changes looking toward the reduction of the number of the State commissions. One change was the abolishing of the Boards of Health and of Charities, and the establishing of the Board of Health, Charity, and Lunacy.

Soon after this, Mr. F. B. Sanborn, the present secretary of the board, preferred charges against the management of Tewksbury. The investigation was private, and the whole matter was thought by some to be "whitewashed"; yet good was accomplished, for through the investigation reforms were instituted; and since then affairs have been conducted in a much more satisfactory manner, and no complaints were heard till His Excellency, Governor Butler, in his inaugural address last January, took occasion to speak in a highly disparaging manner of the various State charitable institutions; and later on, when

the appropriation bills for their support came before him for action, he vetoed them, and made such charges against the Tewksbury State Hospital and Almshouse that the Legislature appointed a special committee to investigate this institution.

This legislative committee began its labors on March 30, 1883, Governor Butler appearing as the prosecuting officer, while the trustees of Tewksbury were represented by E. P. Brown, Esq., a young lawyer of marked ability.

A detailed account of the testimony would be too long. I will therefore only touch upon that interesting from a medical point of view.

One witness testified that hundreds of babies' bodies were sent yearly from the Tewksbury poor-house to the Harvard Medical School to be used as subjects for dissection; that he himself had repeatedly dissected such bodies; that the students bought the bodies surreptitiously from the janitor and carried them home; that animals were dissected on the same table with the human subjects; and that the remains of both were placed in a common receptacle and buried in the same pit.

The rest of the testimony was directed toward the mismanagement of the superintendent in allowing bodies to be packed in boxes at night and carted off to the medical schools, or to practitioners who wanted material for dissection. The resident physician was charged with the improper performance of craniotomy. Supplies and the effects of paupers were alleged to have been purloined by the family of the superintendent.

Before all his evidence was in, the Governor, for reasons best known to himself, removed the trustees of the institution, and placed it under the control of the State Board of Health, Lunacy, and Charity; and recommended the dismissal of the former superintendent, and specified whom he would consent to have appointed in his place.

Acting under legal advice, the board above named assumed control, but not until quite a voluminous and spicy correspondence had passed between the secretary of the board and His Excellency, in which correspondence, let me say, the Governor did not come out with flying colors.

One of the first acts of the board, on assuming control, was to send one of their number, Mrs. Clara T. Leonard, a lady whose experience in such matters is well known, to examine the institution and report the true state of affairs. This she did, and her report was, in the main, favorable to the management of the institution. The report itself was a masterpiece, and I recommend it for the perusal of all interested in the subject. The board was obliged to declare the office of superintendent vacant, as the incumbent had failed to file a bond as prescribed by law. At present a member of the board is acting in that capacity, but the office will be filled when the Executive Committee find a suitable man. It is reported that they intend to appoint a physician; but, in order to get one fit for the responsibilities of the position, a much larger salary will have to be paid than has been heretofore. At present there is no money appropriated for the carrying on of the institution, the Legislature favoring one sum, the Governor declaring it too much, and that he is willing to "run" the institution himself for a much less amount. Supplies are bought on credit, and it is safe to say funds for the payment will be forthcoming in due time.

The testimony for the defense began on Monday, May 14th, but this I will leave for another letter. The general impression is that the investigation will be the ground upon which the Governor will raise the issue for his election next fall. The best campaign document that could be sent out to controvert the assertions made by His Excellency would be the report of Mrs. Leonard, spoken of above.

Book Notices.

Hand-Book of the Diagnosis and Treatment of Diseases of the Throat, Nose, and Naso-Pharynx. By CARL SEILER, M. D., Lecturer on Laryngoscopy at the University of Pennsylvania, etc. Second edition, thoroughly revised and greatly enlarged. With seventy-seven illustrations. Philadelphia: Henry C. Lea's Son & Co., 1883. Pp. 295.

THE first edition of this little text book has already been reviewed in this journal, and received the favorable notice to which its merits entitle it. We are glad that it appears again in a second and enlarged edition, for it is one of the best of the practical text-books on this subject with which we are acquainted. The present edition has not been issued without considerable work on the author's part, especially in the department of diseases of the nasal cavities, and for this reason the size of the book is increased; but its eminently practical character has been maintained. Many new illustrations have also been introduced, a Case Record-Sheet has been added, and there are a valuable bibliography and a good index of the whole. For any one who wishes to make himself familiar with the practical management of cases of throat and nose disease, the book will be found of great value.

Transfusion: its History, Indications, and Modes of Application.

By CHARLES EGERTON JENNINGS, L. R. C. P. Lond., etc. London: Baillière, Tindall, and Cox, 1883. Pp. viii-69.

DR. JENNINGS is already well known to the readers of current medical literature for the interest he has shown and the study he has devoted to the question of transfusion, and the present little volume is a *résumé* of what he has previously written. He believes in the use of a saline fluid in preference to human or other blood, and gives the formula for its preparation. He has also invented a very safe, simple, and effective syringe with a sharp needle which he introduces into the vein of the patient to be operated upon; and to the consideration of these two elements of the operation, and the objections to the older methods, the book is chiefly devoted. He has also been to considerable pains to collect a very complete bibliography of the subject, covering twelve pages.

BOOKS AND PAMPHLETS RECEIVED.

Labor and Capital. By Edward Kellogg. New York: John W. Lovell & Co. Pp. xxvi-17 to 374, inclusive. [Lovell's Library. Price, 20c.]

The Principles and Practice of Medical Jurisprudence. By the late Alfred Swain Taylor, M. D., F. R. S., etc. Third edition. Edited by Thomas Stevenson, M. D. Lond., F. R. C. P., Lecturer on Medical Jurisprudence and on Chemistry at Guy's Hospital, etc. Philadelphia: Henry C. Lea's Son & Co., 1883. 2 vols., pp. xx-727; xiv-657.

Notes of a Case of Enteric Fever which had Two Relapses, with an Unusual Prolongation of the Interval between the First and Second Attacks. By Robert W. Forrest, M. D. [Reprint from the "Glasgow Medical Journal."]

Tubercular Cerebro-Spinal Meningitis. By J. T. Eskridge, M. D., etc. [Reprint from the "Journal of Nervous and Mental Disease."]

ANTI-VIVISECTIONISTS.—Sir Spencer Wells invented a term for the anti-vivisectionists, in his Hunterian oration, that will establish his reputation in a new direction; he denominated them "misanthropic zoöphilists."—*Med. Annals.*

THE
NEW YORK MEDICAL JOURNAL,
A Weekly Review of Medicine.

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Edited by
FRANK P. FOSTER, M. D.

NEW YORK, SATURDAY, JUNE 9, 1883.

THE EFFECT OF COLLEGE LIFE ON THE HEALTH OF
WOMEN.

In view of the increasing numbers in which young women are availing themselves of the means open to them of pursuing courses of study and of after-life analogous to those followed by college-bred men, the question is becoming more and more interesting as to the effect such a career has upon their bodily health. This question has indeed been contemplated by many who have had it brought to their attention, but as a general thing it has not been discussed by them in the light of any considerable collection of facts. In an article published in a recent number of "Education," a summary of which we find in the "Boston Journal," Mr. L. H. Marvel gives a number of data gathered by means of correspondence with instructors in some of the principal educational institutions that are open to women.

Information was asked in answer to the following questions: 1. How does the health of young women who enter the institution compare with the health of other young women of the same age and of like social position? 2. How does the health of those who graduate compare with the health of the same persons on entering college? 3. In those institutions where both sexes are admitted, is there any marked distinction in the effects of college life upon men and upon women?

The summary to which we have referred does not give the facts brought out by the first question, if any there were. It may be doubted, indeed, if college preceptors are in a position to reply to such a question with a much fuller knowledge of the facts than common observation would supply to others. Concerning their own pupils, it is true, they are doubtless able to speak with an approach to precision, but we fail to see by what means they are to estimate the health of other young women with sufficient accuracy for the purposes of the comparison.

The answers generally given to the second question were to the effect that young women are apt to go through their pupilage without impairment of health, unless in the case of those who try to accomplish more work than the curriculum embraces, or than the teachers approve of, and of those whose physique has already been impaired by "the demands of society." It was stated by many, indeed, that the body as well as the mind was strengthened by the course.

In regard to the matter covered by the third question, there seems to have been some difference of opinion. While the principal of the Normal School at Salem, Mass., thinks that on the average young women can not safely do as much mental work for a considerable period as young men, the president of Madison University reports that the young women achieve their

tasks with less labor than the young men, and, although in no wise falling behind the latter as scholars, are, on the whole, in better health.

The mortality rates among graduates of various colleges are given, covering a period of thirty years. From these it appears that, of the graduates of Mount Holyoke Seminary, representing the schools for young women, only 10.39 per cent. died during the term of years mentioned. Only one other institution, Williams College, showed a lower rate, 10.12 per cent., while the proportion among Harvard men (exclusive of the "war mortality") was 11.52 per cent.; that of the Yale alumni 13.42 per cent.; and that of Dartmouth graduates 16.83 per cent. It is to be hoped that Mount Holyoke is a fair example of the better class of those institutions in which women are educated.

There is an opportunity, it seems to us, for the various medical colleges for women to contribute materially to the elucidation of the points covered by queries like those alluded to. Although those institutions can not deal with the large numbers of pupils that are to be found in the academic schools, the accuracy with which their instructors could make their observations would more than counterbalance the numerical deficiency.

AUTOPSIES FOR LEGAL PURPOSES.

An anonymous correspondent of the "New York Times" calls attention to the case of a soldier, a raw recruit, who was accidentally killed by a bullet wound at a rifle range, he having incurred the shot by carelessly stepping out from behind the target while the firing was going on. The writer states that a post-mortem examination of the soldier was made, by order, as he avers, of the Surgeon-General of the army. And he then proceeds to descant upon the injustice of ordering an autopsy in a case of manifest accident without the consent of the dead man's friends, or rather, as he really puts it, without the man's own consent. He further argues that no one would think of performing an autopsy on the body of a soldier killed in battle, and draws a parallel between that sort of death and the incident in question.

Now, all this is very touching, and doubtless it reflects the natural feelings of a large-hearted person; but, before rushing into print with a grievance, whether it be one's own or one adopted for the occasion, it is well to look at both sides of the matter. We are not convinced that our friend has done so in this instance. He does not state what means he has of knowing the precise facts in the case, and, as he chooses to conceal his identity, his readers are left in the dark as to those means. His argument they can follow, to be sure, perhaps in utter forgetfulness of the fact that the best of arguments is but a mockery unless founded on a basis of strict fact. It is quite possible that there was an element in the case that made it the duty of the post surgeon to satisfy himself as to the cause of death beyond legal quibble. Indeed, something of the sort is almost certain, for nothing is clearer than that the gentlemen of the army medical corps, no less than the line officers, are scrupulously tender of the rights of the enlisted men, especially

so sacred a right as that of the decorous disposal of their dead bodies.

There are many circumstances that may make the performance of an autopsy a duty, although they may not be apparent to a layman. In this very case, even taking the writer's version, it is obvious that the parallel between a violent death at the hand of a comrade, however manifestly accidental, and a death met in battle, by a shot from the ranks of the enemy, is not beyond criticism. Some malicious tongue might assert that the fatal shot was so intended, and in that case a judicial inquiry would probably be the result. Such an investigation would be sadly defective, if it did not elicit proof positive of the cause of death. In law, whether civil or military, a mere impression is not competent evidence, however general it may be, or however well founded it may appear, unless all means of corroborating or of dispelling it have been exhausted. In view of the chance that such an investigation would be called for sooner or later, it would have been a manifest dereliction of duty on the part of the medical officers concerned in this case if they had not taken all possible precautions to facilitate the course of justice. And it should not be forgotten that it is not alone the primary sufferer, but also the accused, or he who is under a liability to be accused, that should enjoy all available co-operation in the establishment of his rights—the right to a proof of innocence being as inalienable as the right to prove an injury.

THE CLIMATIC TREATMENT OF CONSUMPTION.

IN this issue of the journal we publish the first part of a notable contribution to the study of an exceedingly important question—Dr. Tyndale's article on The Climatic Treatment of Pulmonary Consumption. During the last few years we have published several valuable papers on the same subject, especially those by Dr. Talbot Jones, of Minnesota, Dr. Geddings, of South Carolina, and Dr. Kenworthy, of Florida. Each of these gentlemen wrote in the light of extensive personal observation in a field differing decidedly in climatic features from those in which the experience of the others had been gained. From their diverse standpoints a light was shed on the question that illumined not one of its aspects only, but several. As in physics two forces acting in different directions combine to impel a body in still another course, so in the march of knowledge a true advance may be the outcome of a confluence of individual movements no one of which is quite in the right line.

Dr. Tyndale will be seen to have borne this consideration well in mind, and, while he could easily have given his paper a more personal character, and thus have urged his own views more to the exclusion of others, by adopting that course he would have done far less to clear up the subject than he has chosen to do by presenting a collection of the opinions that have been formed by a great number of physicians whose opportunities and capabilities give them the stamp of positive value.

There are few questions in therapeutics of which the complexities are more difficult to unravel than this matter of the

relations of climatic peculiarities to consumption. When we take into account that the term consumption is made to cover a number of pulmonary affections differing markedly from one another, not only as to mere lesions, but as to antecedent causative changes, in short, as to the whole course of the morbid process; that the constitutional conditions are as various as could well be imagined, both as regards bodily health and as regards what is best described as the *morale*; that in one case heredity stands out as a prominent feature, while in another it plays no part whatever; that this patient is affected beneficially by a radical change of his associations, while that one pines for the scenes of his former life—when we consider all these and many other like circumstances, we may cease to wonder at the discordant sentiments that prevail as to the question of sending consumptives to one or another of the many regions that have become prominent as resorts for that class of invalids, and we may concede that St. Paul may justly boast of her cures as well as Florida. To say that either of these places, or any one of some scores of others, is *par excellence* the one to which consumptives should be sent in a routine way in crowds, is to say that the chameleon is always of a specified hue.

But, tangled as the web is, it is scarcely more unpromising to the investigator than many another therapeutical problem that has passed to its final solution; and modern methods of inquiry, taking nothing for granted, but doubting everything until it is proved, sifting facts, arranging them, and studying their interdependence, will unquestionably in the end give us a rational and available appreciation of what now seems a mass of disjointed and incongruous data.

THE MASSACHUSETTS PHARMACY BILL.

IN the Massachusetts Legislature, the House Committee on Public Health has reported a bill the provisions of which are as follows: 1. The president and trustees of the Massachusetts College of Pharmacy shall annually appoint three competent persons to serve as commissioners of pharmacy. 2. After January 1, 1884, all pharmacists shall be examined by the commissioners. 3. Graduates of a college of medicine or pharmacy may carry on a druggist's business on proving that they have so graduated, and on paying a fee of three dollars. 4. The commissioners are to keep a register of all persons examined by them, and of their places of business, a fee of eight dollars to be charged for such registration, and a fee of ten dollars for the license. The latter must be not less than twelve inches square, and must be kept posted in a conspicuous place. 5. After sixty days from the time the law goes into effect (January 1, 1884) sales without a license shall be punishable by a fine of from \$100 to \$200 for each offense, and, on a second conviction, by fine and imprisonment for not more than one year. 6. The commissioners are to inspect artificial drugs and compounds, and, if they believe them to have been sophisticated, they shall order their sale to be stopped. Sales after such order shall render the dealer liable to five times the penalties before mentioned. 7. A person who can not pass the

commissioners' examination may have his business carried on by a person who can pass it.

This bill strikes us as objectionable in some respects. The provision that a graduate of any college of medicine or pharmacy may snap his fingers at the commissioners makes rather in favor of the multiplication of such institutions than in favor of an improvement in the profession of pharmacy. A suitable respect for vested rights would be secured by exempting such graduates only as are now engaged in the practice of pharmacy, leaving the commissioners to deal with all future applicants, whether graduates or not. Then, too, in regard to the inspection of drugs, we are unable to see why simple drugs should not be subjected to the same requirements as "artificial" drugs and compounds. The stress of the penalty, moreover, seems likely to fall only on those in whose possession the stock inspected may happen to have been found, leaving the manufacturer or importer unpunished. It must be admitted, however, that an active and watchful board of commissioners might reduce the last-mentioned objection to a minimum.

COMMERCIAL SANITATION IN THE MISSISSIPPI VALLEY

STEPS are being taken by some of the sanitarians of the Mississippi Valley to secure concerted action by a number of transportation companies to enable the National Board of Health to continue its quarantine service after the time at which its lack of funds available for the purpose would otherwise render its discontinuance necessary. According to a recent statement by the secretary of the board, the funds in hand will suffice until the close of the current month, and an opinion has been obtained from the Treasury Department that the board can legitimately continue its quarantine and inspection service up to that time. It is for the purpose of carrying the work on after that date, as we understand it, that contributions are sought for from the corporations in question.

A REFORM IN THE ADMINISTRATION OF THE PARIS HOSPITALS.

HERETOFORE patients have not been received into the hospitals of Paris, unless conveyed thither by the police, having been injured in the streets, or unless admitted by order of the medical officers who make the regular morning visit. Consequently, those unfortunates who presented themselves in the afternoon were sent to the central office, whence they were obliged to make their way on foot to the particular hospital to which they might be assigned. Hereafter, however, as we learn from the "Union médicale," all applicants will be received provisionally into any hospital at which they present themselves, and, in case of their subsequent assignment to another, they will be conveyed to the latter in a vehicle. Moreover, the remnants of each day's meals are to be served to applicants the next morning, instead of being disposed of to a contractor, as heretofore.

THE CITY GOVERNMENT AND THE CONTAGIOUS DISEASES HOSPITAL.

WE lately chronicled a protest on the part of the Board of Aldermen against the establishment of the Board of Health's

hospital for contagious diseases at the foot of East Sixteenth Street. We are not aware that that protest constituted any legal impediment to the proposed action of the Health Department, and we are quite sure that with the thinking part of the community its moral effect was nil. Whatever importance may have seemed to attach to it in the minds of those of our citizens who mistake buncombe for an expression of solicitude on their behalf must now be swept away, in so far as persons at all open to enlightenment are concerned, by the action of the Mayor in communicating to the Board of Aldermen his disapproval of their resolution. "It requires no expert knowledge," says the Mayor, "to understand the importance of such a hospital as that which it is proposed to erect at the foot of East Sixteenth Street, but as to the proper location and construction of the building it seems prudent to rely upon the Board of Health."

THE PARIS NIGHT MEDICAL SERVICE.

ACCORDING to the "Union médicale," 1,865 visits were made during the first three months of the current year, against 1,978 during the corresponding quarter of last year—a falling-off of about one visit each night. Thirty-two per cent. of the patients were men, fifty-four per cent. were women, and fourteen per cent. were children under three years of age. Among the more urgent cases there were fifty-five of croup, nine of cholera, twenty-four of strangulated hernia, sixty-seven of abortion, two hundred and fifty-eight of parturition, sixty-nine of convulsions, one of hydrophobia, sixty-nine of hæmorrhage, thirty-nine of fracture or dislocation, fourteen of burns, fifteen of poisoning, six of coal-gas asphyxia, and two of suicide. In forty-seven instances the patient was dead when the physician arrived.

A TRAINING SCHOOL FOR THE BLOCKLEY HOSPITAL, PHILADELPHIA.

At a recent meeting of the Board of Guardians of the Poor, in Philadelphia, extracts were read from the minutes of the Hospital Committee, recommending "that the general plan now in use at the Charity and Bellevue Hospitals, New York, as relates to the employment and training of nurses, be introduced into the institution." It is said that the medical staff urged this measure, and agreed to recommend Dr. Seaman, who had had charge of the Charity Hospital Training School in New York, for appointment to a like position in the proposed school. The Board of Guardians felt obliged to defer action on the project, as they were not now authorized to spend money for such a purpose.

THE MEDICAL DIPLOMA INDUSTRY IN MASSACHUSETTS.

THE House bill for preventing the traffic in bogus medical diplomas in Massachusetts seems to be meeting with obstruction in the Senate. The House, however, insists on its bill, and a committee of conference has been appointed. It is to be hoped that the matter will end in the passage of an efficient bill by both houses, and that the Governor will not fear to offend his supporters by signing it.

THE ELECTRIC FRONTAL ILLUMINATOR.—With the aid of M. Trouvé, the electrician, M. Paul Hélot, a hospital surgeon of Rouen, has devised an illuminating apparatus, the *photophore électrique frontal*, consisting of an incandescent lamp contained in a metallic cylinder, with a reflector behind it and a bull's-eye condenser in front of it, the whole being attached to a head-band and worn on the forehead. It is said to be small and light, and to work for several hours at a time. The current is supplied by a Trouvé's supersaturated bichromate pile.

Proceedings of Societies.

NEW YORK SURGICAL SOCIETY.

A STATED meeting was held May 8, 1883, T. M. MARKOE, M. D., President, in the chair.

FRACTURE OF THE PATELLA.—Dr. L. A. STIMSON presented a patient who had suffered from an ordinary transverse fracture of the patella. The result was very close union, but with recognizable mobility of the fragments upon each other. The treatment consisted in immobilization of the limb with a fenestrated plaster apparatus in the extended position, the fragments being held in contact with India-rubber tubing, one piece above and the other below the patella. The fracture occurred twelve weeks ago, and, when first examined, the fragments were separated from three fourths of an inch to an inch. An interesting feature in the case was the fact that the patient had suffered from fracture of the patella on the opposite limb fifteen years ago, which was treated with an iron horse-shoe arrangement, and apparently bony union had taken place.

Dr. Stimson presented a second patient with compound fracture of the patella, in whom the mobility of the joint was about the same as that in the first case two weeks ago. The details of the history of the case appear in his paper which follows.

Dr. Stimson then read a paper ON SOME COMPOUND ARTICULAR FRACTURES. [See p. 621.]

Dr. ALFRED C. POST said he remembered the time when compound fracture of the knee joint was regarded as *ipso facto* calling for amputation. He recalled a case in the New York Hospital, and under the care of Dr. Kearney Rogers—a laboring man who had his patella fractured by frozen earth falling upon the limb, and there was a free transverse wound opening into the knee joint. The surgeons decided that the limb should be amputated, but the patient decided that the operation should not be performed. The external wound was very free, so that drainage readily took place, and the patient recovered without any considerable amount of inflammation. This occurred about the year 1840, and, to the best of his recollection, was the earliest case which opened the eyes of the surgeons to the expediency of attempting to save the limb in cases of knee-joint fractures.

Dr. E. L. KEYES said he had just received a letter from one of his former students (Dr. Alexander), now in London, stating that he had recently followed Mr. Lister in the treatment of two cases of simple fracture of the olecranon by opening the joint, drawing the fragments together with wire, hammering the ends of the sutures down smoothly, and then closing the wound. The operations were performed under full antiseptic precautions, and all of the patients had done well; that is, neither suppuration nor inflammation had occurred. What the ultimate result would be with reference to mobility, of course had not been ascertained.

Dr. Keyes had treated one case, bearing on the subject, in Bellevue Hospital—that of a boy who had suppuration of the knee joint with necrosis of the patella. The condition was due to a traumatic cause, the exact nature of which he did not recall, but the suppurative process invaded the joint. Dr. Keyes opened the joint freely upon both sides, passed a drainage-tube completely through the limb, and washed it out freely with an antiseptic solution. At about the same time suppuration occurred above the patella, and he opened the abscess and finally removed the entire patella. In the dressing, simple cleanliness was observed and complete drainage secured, and the boy recovered, with a movable joint and a new patella.

Dr. H. B. SANDS recalled a number of cases in which recovery had taken place after compound fracture of joints. He remem-

bered one, a case of compound fracture of the patella, which he had treated in Bellevue Hospital. As in the case mentioned by Dr. Post, it was believed that the joint would suppurate, and it was thought that amputation was advisable; but, under simple dressings, the wound closed, suppuration did not occur, and the man recovered with a perfectly normal joint.

He had seen a number of cases of fracture into the elbow joint which had recovered, some with, some without antiseptic dressing.

He had also excised the astragalus in two cases—one a compound dislocation with fracture, and the other a fracture in which the greater part of the bone was displaced, and pressed upon the soft parts, threatening mortification. In the last case an opening was made and the fragment of bone was removed. In the first case no antiseptic dressing whatever was employed. In the second case full antiseptic precautions were observed at first, but the physician under whose charge the case remained substituted a simple water dressing, and the patient did well. In both cases the patients recovered with a limited amount of motion at the ankle, as might be expected after such an injury.

Dr. Sands thought the point which Dr. Stimson made with regard to the concomitant injury of the soft parts in cases of fracture was a very important one. He believed that most surgeons would agree that often the least important lesion in a case of fracture is that of the bone, and that compound fractures often do badly because the soft parts are so severely injured that their vitality can not be maintained.

Whether American surgeons were not thoroughly well versed in antiseptic methods he was not prepared to say, but evidently the results obtained in this country were not so favorable as those which had been published in foreign journals.

Sometimes operation-wounds of joints pursue an unfavorable course in spite of every precaution. For example, in a case of old fracture of the patella treated at one of our hospitals by joining together the fragments with silver wire, the Listerian method was strictly carried out; nevertheless, suppuration followed, and the patient lost her life. In another instance, in which a simple fracture of the patella was converted into a compound fracture, and the bones were wired together, the patient had a severe attack of inflammation of the joint, and was very ill for a long time, although she finally recovered, with a stiff joint. He should be disposed to treat a compound fracture of a joint by very careful washing with an antiseptic solution, by free drainage, and with the least amount of excision possible.

Dr. A. G. GERSTER was able to recall a few cases of fracture involving joints, one of which, perhaps, was worthy of mention. A grocer, while unloading a heavy cask, lost his balance, fell, striking upon one elbow, and the barrel rolled over the same arm. Dr. Caillé had charge of the case, and found an extensive compound fracture of the elbow joint, both condyles being involved, and a single split of the bone entering the joint, so that the whole fracture presented an appearance very much like that of the letter Y. The external condyle was completely detached. On the outside of the limb there was a large lacerated wound opening into the joint. The periosteum having been almost entirely torn from the external condyle, Dr. Gerster removed the bone, together with the eminence corresponding to the articulating surface of the radius. The spur-like, sharp projection of the diaphysis of the humerus was sawn off, and a counter-opening was made on the inner aspect of the joint. The wound was washed out well with a five-per-cent. solution of carbolic acid, drainage-tubes were inserted, and the wound in the soft parts was united by a sufficient number of sutures to give the joint a certain amount of support. Antiseptic dressings were applied, and the limb was placed upon a splint. When the patient came from under the influence of the ether he went

into a condition of violent mania, and thrashed about with the injured arm very severely. After he had been quieted by a hypodermic injection of morphine, the dressings were removed, and it was found that a large venous hæmorrhage had taken place, which was controlled by pressure, and the dressings, with the splint, were reapplied. Despite the extensive injury originally done to the limb, and subsequently done by the violence of the patient, the case did very well. No fever followed, and Dr. Gerster attributed the result largely to the fact that it came under observation very early—before any infectious process had commenced in the wound. The final result was that perfectly good motion was established. A small fistula remained open about five months, and then closed, and mobility subsequently became perfect. Passive motion was begun about the third week. There may have been some new bone formation, but nothing like an external condyle developed. The radius was fixed in its normal position, and all of the motions of the limb were apparently complete.

Dr. Gerster related a second case—one of extensive injury of the ankle joint. The injury was caused by falling from a wagon, breaking the ankle, and the patient was brought into the hospital five hours afterward, where the wound was dressed without washing and simply by sealing it up. Within three days intense phlegmonous inflammation developed, and amputation was necessary in order to save the patient's life. Early and thoroughgoing antiseptic measures must decide the fate of the injured limb.

Dr. C. T. POORE referred to a case of compound fracture of the ankle joint which he saw when an interne in the old New York Hospital. The end of the tibia protruded, and was cut off. Suppuration of the joint occurred, but the man recovered, with good motion.

Dr. C. K. BRIDDON said that twenty-five years ago it was a disputed point as to whether it was proper or improper to resort to excision of protruding bones in compound fracture of the ankle joint.

Dr. Post said there was a case of malpractice on record for cutting off the protruding extremity of the bone under these circumstances, and, so far as he could recollect, it was decided in favor of the surgeon.

The PRESIDENT said that his own convictions were in favor of a certain plan of treatment well known to the society—namely, that by thorough drainage, and by the use of it he had secured very satisfactory results. The drainage-tube is retained in the wound until granulation has fairly begun. He had employed it in compound fracture of the elbow joint, but he did not remember to have used it in any case of similar injury to the knee joint. In the elbow joint he passed it through the capsule always behind the joint, and allowed it to remain from four to six days.

Dr. STIMSON asked if, in the third case which he reported, the President would have treated it by means of thorough drainage.

The PRESIDENT answered that he would not; that he would have in that instance sealed the wound with collodion.

EXCISION OF THE TONGUE AND FLOOR OF THE MOUTH; LIGATION OF BOTH LINGUAL ARTERIES.—Dr. BRIDDON presented specimens accompanied by the following history: David S., aged sixty-five, native of Ireland, single, laborer. Family history good; was not aware of any predisposition to cancer. No history of syphilis. Had been a smoker for thirty years. Three months ago he noticed something on the under surface of the tongue that impeded its movement, especially preventing protrusion. It gradually increased; was not exceedingly painful, but interfered with eating and talking. Had had no hæmorrhages, but complained of pain in his left ear.

Admitted to Presbyterian Hospital April 27, 1883. Exami-

nation of the mouth revealed an irregularly shaped ulcer, involving the under surface of the tongue and the floor of the mouth as far forward as the internal surface of the anterior portion of the lower jaw. It involved principally the left side of the tongue, but, passing across the mesial line, it encroached on the right. Its edges were slightly everted, unequal, irregular, excavated, base indurated, motions of the organ impeded; he could not elevate its tip; ganglions not involved. Spontaneous lancinating pain, darting toward ear. Diagnosis, epithelioma. Removal advised.

Operation, May 2, 1883, 2.30 P. M., under the influence of ether. The superficial veins were very large, the facial, as it passed over the jaw, equaling in size the little finger; and, as the incisions had to be carried into close proximity with them, it was necessary to proceed with deliberation. On the right side the superficial structures were divided until the posterior belly of the digastric muscle and the hypoglossal nerve were exposed. The greater cornu of the hyoid bone was steadied with a uterine tenaculum; a curved needle, carrying a ligature, was then passed under and around it, and traction upon this brought the process nearer to the surface and steadied the hyoglossus muscles. An incision was then made through the muscles parallel with and below the nerve; the artery was exposed without any further difficulty, and was secured with a carbolized-silk ligature. On the left side the artery was tied within the digastric triangle. Considerable difficulty was experienced in separating the capsule of the submaxillary gland. It will be remembered that the disease was most extensive on this side of the mouth, and that might have had something to do with it. At all events, the gland was suspiciously indurated, but not so much so as to warrant its removal. It was not an easy matter to keep it out of the field of operation. The artery was found below the nerve, but it was more difficult to isolate than on the right side. It was also secured with a silk ligature.

Attention was then paid to the mouth. A scalpel was carried round the inside of the maxilla, close to the bone, but not quite anterior to the limits of the disease. The soft parts were then cleared from the surface of the genio-hyoid muscles by strong, blunt-pointed scissors. This dissection was carried beyond the limits of the disease, and then a transverse section completed the extirpation. A few small bleeding points were secured in the floor of the mouth, and all the soft parts covering the posterior surface of the front of the jaw were removed with the sharp spoon.

For three or four days there was considerable swelling below the left side of the jaw, but it subsided. Fætor of the mouth diminished under the hourly use of a wash consisting of borax, glycerin, and tincture of benzoin, and now, six days after the operation, he was sitting up in bed, doing well.

FUNGUS ARTHRITIS; RESECTION OF THE ELBOW JOINT.—Dr. BRIDDON also presented fragments of bone removed from the elbow joint. Maurice W., aged forty, native of Ireland, married, longshoreman, said that his family history was good, and that he had always regarded himself as a healthy man. He fell on his left elbow three years ago, but continued to work for two years, complaining only occasionally of soreness in the joint. Eighteen months after the injury the joint began to grow stiff, and this condition increased until about eight months ago, when pain became more annoying, and it became red and swollen. Several incisions were made at that time, evacuating matter. The incisions contracted, and the discharge continued in diminishing quantity.

Admitted to Presbyterian Hospital April 23, 1883. General condition pretty good; left arm flexed to nearly a right angle. The elbow joint was occupied by a fusiform swelling that reached three inches above and four below the line of articulation. Move-

ments limited, but not accompanied by crepitus. Above the superficial swelling there could be detected a deeper seated swelling, evidently periosteal, and reaching to the middle of the humerus. There were several puckered cicatrices about the joint, and the partially healed remains of an incision recently made. Through several of these sinuses a probe appeared to traverse the joint, and at one point came in contact with carious bone.

Diagnosis, fungous arthritis. Resection advised. Operation was performed May 5th, under the influence of ether, by the ordinary method of procedure. The joint was found completely disorganized; cartilages destroyed; nearly everywhere the dense lamella of bone that underlies the cartilage was gone, and the cancellous structure exposed, its spaces filled with granulation tissue.

Dr. W. S. HALSTED suggested that the reason why Dr. Briddon experienced so much difficulty in securing the lingual artery upon one side was that his assistant, while attempting to draw the hypoglossal nerve out of the way with a hook, at the same time raised the lingual artery with it and the hyoglossus muscle. He thought this was the case, because as soon as the assistant relaxed his hold with the hook the artery was readily exposed. Dr. Halsted also offered the suggestion that, instead of dividing the muscle at right angles with the direction of the fibers, ligation would be facilitated considerably by simply separating the fasciculi to any extent which might be necessary without cutting.

Dr. BRIDDON remarked that he was particularly struck with the facility given to the operation by fixing the greater cornu of the hyoid bone with a thread so that it could be placed under the complete control of the assistant.

Dr. POST believed it to be a general surgical principle that wherever a loop of thread could be used instead of the forceps or hook to secure mere fixation, it was much more desirable than to employ the vulsellum or hook, or other means, as it was more secure.

Dr. STIMSON said it seemed to him, from the facility with which the tongue could be drawn out from the mouth, a fact mentioned by Dr. Briddon, that the hæmorrhage might have been controlled very readily, even if it had been much more severe than it was.

Dr. BRIDDON said his impression was that Whitehead's operation would do away with the necessity of ligating the lingual artery at all in these operations.

The PRESIDENT remarked, concerning the second specimen presented by Dr. Briddon, that about three weeks ago he excised the elbow joint for caries, treated it with thorough drainage, and experienced no trouble whatever. No suppuration occurred outside of the joint, and the patient is far advanced toward recovery. The temperature was never elevated above 101° Fahr. He removed the drainage-tube at the end of six days.

MYXOMA-SARCOMA OF THE UTERUS.—Dr. F. LANGE presented a specimen consisting of a uterine tumor and the ovaries removed by supra-vaginal amputation, twenty-four days ago, from a woman forty-four years of age. Microscopical examination showed that the growth was myxo-sarcomatous, large spindle cells predominating. The entire mass, solid and fluid, weighed at least twenty-five pounds. The following history was given:

An otherwise healthy woman, had borne five children, the last being delivered fifteen years ago. Since that time she had been regular, but the menstrual flow had been somewhat abundant. About five or six years ago she noticed some increase in the size of her abdomen, but it gave her no trouble whatever, and she did not consult any one until a year and a half ago, when she consulted a woman who by some manipulation caused a watery discharge to take place from the vagina, and this was followed by a decided decrease in the size of the abdomen. After a short

period, however, the tumor again increased in size, and she then applied to her family physician, who told her that the growth of her abdomen was due to an increase in the size of the uterus, and that nothing could be done for her. Dr. Lange saw the patient first early in March of this year, at which time the distension of the abdomen was very great; the largest circumference was one hundred and twenty-two centimetres, due, apparently, in great part, to the presence of a solid tumor starting from the pelvis, and located chiefly in the right side of the abdomen. It extended upward to the ribs. The umbilicus was very much distended, and the fact that in the erect posture the umbilicus was pouting and was collapsed in the horizontal posture, together with the dullness prevailing in the lumbar region which cleared up when the patient assumed the lateral position, led him to the conclusion that there was a certain amount of fluid in the abdominal cavity. The tumor was movable in the lower part, but seemed to be attached at the upper part, where the patient complained of considerable pain. Before the development of this pain she had scarcely complained of any discomfort, except from the size of the tumor. There was a pronounced uterine murmur over the lower part of the abdomen. Afterward, examination showed the vaginal portion of the uterus very much elevated, so as to be scarcely touched with the finger; but movement given to the tumor from the outside was communicated to the vaginal portion. The probe entered the uterus to the depth of three inches without difficulty. The great distension of the abdomen left it in doubt whether cystic degeneration of the right ovary did not exist apart from the tumor of the uterus. An exploratory incision, however, was decided upon. In the apparently cystic portion of the growth a puncture was made, but fluid could not be removed, and subsequently it was proved that it was of a colloid character, which could not pass through the cannula. The elastic ligature was applied to the cervix extra-peritoneal, the growth was divided a short distance above the ligature, the stump was canterized, powdered with iodoform, and then covered with peritonæum detached somewhat above. The external incision was about fifteen inches long. There were extensive and broad adhesions with the omentum and the transverse colon, but they were quite easily separated. Considerable difficulty was experienced when it was necessary to enter the small pelvis and reach the cervix, but this was overcome by tying the broad ligament with a double mass ligature and cutting across the mass with the thermo-cautery. There was also great difficulty in passing the chain écraseur about the cervix, which Dr. Lange did previous to the application of the elastic ligature. The tumor was separated at a good distance from the ligature preliminary to the final treatment of the stump. The blood-vessels within the chain écraseur and outside of the elastic ligature were tied for the most part separately; some of them, however, were embraced in the mass ligatures. The loss of blood was comparatively insignificant. The peritoneal cavity was carefully cleansed; large, flat sponges, dipped in a warm solution of salicylic acid, probably one to a thousand, covered the intestines during the entire operation, so that the hands did not come in contact with them. The wound was closed by at least seventy superficial and deep sutures. In order to form a thick abdominal wall in the middle line, the abdominal walls were brought together by eight lead-plate sutures introduced at a considerable distance from the cut edges. The peritonæum was sewed up by a continuous catgut suture. Only a very small covering was applied, consisting of a fine layer of gauze, powdered with iodoform and fixed in position with adhesive plaster. No spray was used, and the peritonæum was kept as dry as possible throughout the entire operation. From the first moment the patient was treated as though she was suffering from peritonitis; that is, as soon as

she rallied from the influence of ether and the shock and collapse had passed away, cold was applied locally, and opium with quinine was administered by the rectum. Thus far the progress of the case had been most satisfactory, and Dr. Lange believed that the patient was out of danger. Up to the sixth day she had a good pulse and temperature; but then, without apparent reason, the temperature rose to 104° Fahr. and 105° Fahr., and continued so for two days, while the pulse was from 70 to 80, and the general condition very good. The temperature then subsided, and had not since become elevated. He thought that the elevation of temperature was possibly due to the iodoform, which had been powdered somewhat freely into the abdominal cavity; at least he knew of no other reason to which it could be ascribed. The urine was examined for iodoform, and showed a trace of iodine reaction.

Dr. BRIDGON testified to the value of the flat sponges mentioned by Dr. Lange, which he had just employed in a case of double ovariectomy.

THE CONNECTICUT STATE MEDICAL SOCIETY.

THE Ninety-second Annual Convention was held at Hartford, May 22 and 23, 1883, the President, W. G. BROWNSON, M. D., in the chair.

Although fast approaching its centennial, it was never in a more vigorous condition. The migratory habit inherited from the State Legislature was not abandoned at the same time, so the next convention will meet at New Haven.

Wednesday—First Day.

THE PRESIDENT'S ADDRESS.—It is by law made the duty of the president to call attention to such subjects as he deems worthy of attention and action. In accordance with this, after a brief address of welcome, the president mentioned the following subjects as of importance: In the first place, the legal status of the society should be considered carefully, as, apparently by inadvertence, the charter of the society was lost in the revision of the charter of the Yale Medical Department, with which it was incorporated in a joint act. A general revision of the by-laws may be not inexpedient at the same time. He advised, should such action be taken, the following changes, namely: The addition of permanent fellows, composed of all ex-presidents, who should be called councilors, and have in charge all matters of discipline, select essayists, and perform such other duties as the society might direct. The secretary should be made a permanent officer and paid a salary, and perhaps the treasurer also. The number of delegates from the county societies should be increased in proportion to their increase in membership. The rapid increase of new remedies was deprecated, and the tendency to use them experimentally; a standing committee of four was advised to report annually such as had proved worthy of use. He announced with regret that, from press of other duties, the present secretary could no longer retain the position, and paid a glowing tribute to the value of his services to the society. The work of the State Board of Health was indorsed in the strongest terms, and the action of the Legislature in refusing to repeal the law concerning compulsory vaccination of school children commended; also its action concerning the coroner system—these both, in a measure, due to the influence exerted by this society. The tendency to exalt specialists at the expense of the general practitioner was deprecated, and the labors of the country doctor received their just meed of praise. In closing, he spoke of the code as an instrument that had nearly outlived its usefulness, and that should be supplanted by a higher law toward which we were advancing. The recommendations of the president were referred to proper committees.

AMENDMENTS PROPOSED.—Several other amendments were proposed and received for final action next year: That the member of the Nominating Committee and an alternate be designated by each county society. That alternates be chosen for each delegate. That all motions shall be legibly written, and all remarks written out either before or directly after they are made. That no voluntary paper shall be published unless read previously before some county society.

THE DUTIES OF THE CENSORS OF COUNTY SOCIETIES.—The amendment proposed last year relating to the duties of the censors of county societies was adopted upon a favorable report of the Committee on Unfinished Business.

THE LEGAL STATUS OF THE SOCIETY.—On motion of Dr. Chamberlain, the resolution concerning the Committee on the Legal Status of the Society was reconsidered, and the following, drawn up by Professor W. H. Carmalt, substituted, viz.: That a committee, consisting of one member from each county, to be selected by the fellows from the respective counties, be appointed to take into consideration the legal status of this society, with power to employ counsel, and to report at an especial meeting of this society to be called by the president. The motion passed, and the following were appointed: Dr. C. W. Chamberlain, Professor W. H. Carmalt, Drs. F. N. Braman, George F. Lewis, of Bridgeport, E. A. Hill, H. W. Buel, George W. Burke, A. R. Goodrich.

There was considerable discussion over this committee and its duties. The society, jointly with the college, confers degrees in medicine, and the latter is apparently somewhat restive under the relationship. It was expected that a resolution dissolving this connection would be introduced, as the way had been paved by an article in the daily papers, and as this could be done, according to the revision of 1879, by mutual consent without legislative interference. No such resolution, however, was offered.

THE PUBLICATION OF VOLUNTARY PAPERS.—The Committee on County Resolves reported upon a complaint against the Publication Committee that it was the duty of said committee to decide upon the publication of voluntary papers, but a difference of statements from their opinions was not a proper cause for rejection. The report, on motion of Dr. Chamberlain, was accepted.

HONORARY MEMBERS.—Dr. John S. Billings, Assistant Surgeon-General, United States Army, was elected an honorary member, and Dr. James E. Reeves, of West Virginia, and Professor T. A. Emmet, of New York, were proposed by the committee for action next year.

OFFICERS FOR THE ENSUING YEAR.—The Nominating Committee reported the following list of officers, which was duly elected: President, Dr. E. B. Nye, Middletown; Vice-President, Dr. B. N. Comings, New Britain; Treasurer, Dr. E. B. Swasey, New Britain; Secretary, Dr. S. B. St. John, Hartford; Committee on Matters of Professional Interest, Drs. W. C. Wile, J. H. Granniss, and E. C. Kinney; Examining Committee, Drs. George F. Lewis (Bridgeport) and M. Storrs; To Nominate Professors to Yale Medical School, Drs. J. G. Stanton and J. B. Kent; To Nominate Physicians to the Insane Retreat, Drs. R. Hubbard and R. W. Matthewson; Committee on Publication, Dr. I. W. Lyon; Committee on Arrangements, Drs. J. P. C. Foster, C. P. Lindsley, and S. G. Chapman; Dissertations, Dr. N. E. Worden; Alternate, Dr. W. H. Holmes. Delegates to other medical conventions were chosen as follows: American Medical Association, Drs. G. W. Avery, S. G. Hubbard, W. C. Burke, Ellis Paddock, T. M. Hills, W. J. Beach, S. G. Risley, W. B. Hallock, F. L. Dibble, and F. S. Young; Maine convention, Drs. C. J. Fox and P. H. Ingalls; New Hampshire convention, G. W. Russell and M. C. Hazen; Vermont convention, Drs. Seth Hills and

Frank Coates, Jr.; Massachusetts convention, Drs. F. E. Beckwith and J. G. Stanton; Rhode Island convention, Drs. C. M. Carleton and R. M. Griswold; New Jersey convention, Drs. H. P. Geib and J. G. Gregory.

DELEGATES TO THE NEW YORK STATE SOCIETY.—When the delegates to the New York Medical Society were reached it was moved by Dr. Porter that the nominations be laid upon the table, stating that the attitude of the society toward the American Medical Association rendered such action advisable upon our part, and that similar action had been taken by other societies. The motion was then passed.

TREASURER'S REPORT.—Dr. Swasey then presented his report as treasurer, showing the largest balance in the treasury for many years, if not, indeed, the largest, in round numbers, \$640, an increase of \$200 over that of last year. The expenses had been about \$80 less, the receipts about \$40 more. The recent gain in the treasury was due to the collection of arrearages in Fairfield County by Dr. Wilson, and New Haven County by Dr. Holmes, while there were about \$100 due still on last year's tax, mostly in Fairfield County. There were no arrears extending beyond what was doubtless all collectable. Three counties report no indebtedness, and the amounts in three others are slight, so the condition is fully equal to last year.

THE SALE OF PATENT MEDICINES.—Upon motion of Dr. CHAMBERLAIN, it was voted that this society memorialize the Legislature for a law requiring that no patent or proprietary medicine be allowed to be sold in this State unless the formula is plainly printed on the label, with a heavy fine if analysis should show any essential difference from the formula.

PUBLICATION OF THE PROCEEDINGS.—The usual tax of two dollars was assessed, and seven hundred copies of the proceedings ordered published.

REPORT OF THE BUSINESS COMMITTEE.—The Committee on Business, in addition to several amendments before considered, reported favorably upon the plan proposed by the Massachusetts Medical Society for a medical register of the New England States. The committee also reported a set of resolutions indorsing the Army Medical Museum and Library of the Surgeon-General's office, deprecating their separation, and requesting Congress to provide suitable accommodations in a fire-proof building; also a suitable annual appropriation—not less than \$15,000. The Index Catalogue was declared to be of inestimable value to the whole medical profession, and Congress petitioned to make the appropriation needed for its continuance. A copy of these resolutions was ordered sent to each member of Congress from this State, and members of the society requested to use their individual influence to secure these objects.

The report of the committee was accepted unanimously.

REPORT OF THE COMMITTEE ON THE CODE.—A committee on the code appointed last year reported in substance that if any changes were to be made they should originate in the American Medical Association, where it originated. The report was accepted, and the committee discharged.

A RECEPTION TO THE SOCIETY.—There was a very pleasant reception given at the United States Hotel, Wednesday evening, to the delegates by the Hartford Medical Society.

Thursday—Second Day.

REPORT OF THE SECRETARY.—The second day's session opened promptly at nine with the report of the secretary, who stated that the year had been marked by the same uninterrupted prosperity that had been characteristic of the recent history of the society. There was, it was true, a heavy loss by death both in numbers and in the character of the decedents, many of whom were among the oldest and most active members of the society, and, with scarcely an exception, all having an unspotted name

and fame. There were also those among them whose reputations extended beyond the borders of their own States. Dr. George B. Hanley was widely known as a humanitarian, while the monuments to his name in the Hartford Hospital and Old People's Home would testify of his zeal and devotion to coming generations. Nor was the fame of Dr. E. P. Bennett as a surgeon confined to his native country. Others will long be missed in these meetings. Although there have been fourteen deaths, the new members number thirty-one, so that, after all losses are deducted, there remains a net gain of ten, making our membership four hundred and sixty. In retiring from an office held for the past eight years, the secretary desired to express his sincere thanks for the society's cordial co-operation in his earnest endeavors to serve faithfully the interests of the society, which alone allowed him to transfer his duties with the society in so flourishing a condition, both as to membership and as to financial matters. During this term of eight years there have been eighty-six deaths, and the usual losses by removal, etc., yet the society has gained over a hundred members, having an average of thirty new members each year; and there are four hundred dollars more in the treasury than there were eight years since, and no back taxes due except on the current year—a state of affairs unknown in the financial history of the society hitherto, and found elsewhere in few, if any. After a *résumé* of the duties, trials, and rewards of the office, he renewed his thanks for the kind support received and the expressions of regret at his retiring from office.

Professor WHITE moved that the thanks of the society be tendered to Dr. Chamberlain for his long, faithful, and arduous services for eight years as secretary.

Dr. WILE, after heartily indorsing the resolution and referring to the promptness of the publication of the proceedings and the favorable reviews they received, moved as a substitute that a committee of three be appointed by the chair to draft and have engrossed suitable resolutions, to be presented to the retiring secretary as a slight expression of appreciation of his services.

The motion was passed, and Drs. W. C. Wile, M. C. Hazen, and George L. Porter were appointed.

THE ANNUAL ADDRESS.—The president-elect, having been called to the chair, the retiring president presented the annual address this year, in a poetical form, on the Country Doctor—a graphic pen picture of the life of the rural practitioner, which elicited the frequent applause of the listeners. The poem must be read to be appreciated. A brief extract may serve as a sample of the method of treating the subject; it is the description of a consultation:

"An only child, within whose tender life
Center the fondest hopes of husband, wife,
And many friends, seems on the verge of death;
Convulsed with pain; with fitful, rapid breath,
Clenched hands, eyes sunken, nostrils stretching wide;
He scarce can count the pulse's hasty stride—
He looks at his thermometer amazed,
Its column to a frightful figure raised;
Ah, you and I have felt his anxious fear,
And wished some able counselor were near
To aid in such extremity, or bear
Of such responsibility a share.
No time to lose, he summons to his aid
His nearest rival; time is quickly made,
And, Jehu-like, with foaming steed he drives,
And at the moment specified arrives.
In manner brusque, pompous in air and style,
He greets his brother with the blindest smile,
With new-found friends shakes hands with relish keen;
Happy to see them, happier to be seen.

His conversation he directs to these,
 With studied effort to attract and please ;
 Tells of an anxious case he had last night,
 Which by his skill is coming out all right ;
 Details his treatment in a learned way,
 Bold and heroic as we sometimes say ;
 Consults his watch, and softly names the time
 When he must see a case with Doctor Prime ;
 A city lady, wealthy and refined,
 Attractive both in person and in mind.
 His fine impressions made, he condescends
 To interview the doctor and the friends ;
 And, ere he sees the case, states his belief
 That he can soon suggest a prompt relief.
 He quickly scans the case, and feigns to see
 At once the lesion and the remedy ;
 Tells of a dozen cases he has had
 Within a year with symptoms quite as bad.
 And thus the farce of consultation ends ;
 What further he discloses to the friends
 We ne'er shall know ; but somehow it transpires,
 He gets the case—his brother soon retires.

DELEGATES FROM OTHER STATE SOCIETIES.—The following delegates were then introduced to the convention, who presented briefly the congratulations and kind wishes of their respective societies, viz. : Dr. G. J. Townsend, from Massachusetts ; Drs. A. G. Browning and Charles O'Leary from Rhode Island Dr. St. John read a telegram from Dr. D. C. English, of New Jersey, regretting his inability to be present. Dr. T. D. Crothers presented credentials from the "American Association for the Care of Inebriates." Drs. M. H. Henry and G. Sawyer, from New York, were invited to be the guests of the society.

Dr. HENRY presented, by request of the society, a paper on the treatment of varicocele, in which he described the operation that bears his name, and exhibited the clamp of his invention.

Dr. CHAMBERLAIN related briefly two cases where this operation had been satisfactorily performed by Dr. George C. Jarvis, of this city.

MICRO-SPECTROSCOPY.—Professor M. C. WHITE, of the Medical Department of Yale, presented a descriptive paper on this subject, exhibiting an instrument of his invention, and illustrating its construction. It consists in the introduction of a Jackson micrometer in the micro-spectroscope in the eye-piece, and a non-magnifying telescope in which the eye-piece and field-piece are of the same power.

EXTIRPATION OF THE ENTIRE UTERUS.—Dr. W. C. WILE reported a case where the patient lived five days. The operation was undertaken as a forlorn hope.

A CASE OF RESECTION OF THE HIP JOINT IN A MAN OF FORTY-FIVE was also reported by Dr. Wile. The patient had *morbus coxarius* as a boy, which had healed spontaneously, with some shortening. He had been treated for three months for spinal myelitis by the best specialists of New York city. On his return Dr. Wile found symptoms of iliac abscess, which the patient would not allow him to open. It should be stated that the patient was paraplegic, and had no sensation in the paralyzed parts of the body. When the abscess opened, a large quantity of sanious pus was discharged. The pain that followed was so severe that an operation was allowed. The head of the femur was absorbed, and there was a burrowing abscess extending to the lower angle of the scapula. Several inches of the femur were removed, and the patient made a good recovery. The paraplegia disappeared. He also exhibited a specimen of a tibia recently excised from the leg of a boy suffering from osteitis produced by a fall upon a sharp edge of a board a year previous.

SUCCESSFUL REMOVAL OF THE ENTIRE UTERUS.—Dr. W. C. BURKE, Jr., related a case where he had removed the entire uterus successfully for cancer, and exhibited an instrument of his contrivance for placing the stitches high up, without traction, upon the broad ligament, which he considered as one of the great causes of bad results in this operation.

EXTRA-UTERINE PREGNANCY.—Dr. G. L. PORTER reported a case where the child's head protruded, the fimbriated extremity forming a collar around its neck. The woman died of asthenia.

VESICAL CALCULI.—Professor WHITE reported a post-mortem in which twenty-two calculi were removed from the bladder. They were mostly in a cul-de-sac behind a greatly enlarged prostate. Outside the bladder, in the cellular tissue, there were fifteen concretions, from the size of a pin-head to that of a pea. One, carefully examined, proved to be made up of phosphate and carbonate of lime.

POINTS IN ORAL SURGERY.—Dr. GEORGE S. PARMELEE then read an essay on this subject, of interest to the general practitioner, in which the relations of imperfect and diseased teeth to dyspepsia and various other conditions were described, and other nervous diseases besides neuralgia, which alone is generally recognized as thus caused. The modern methods of treatment of the teeth were also graphically described.

THE TREATMENT OF PLEURISY BY ASPIRATION.—Dr. W. H. HOLMES then presented an admirable *résumé* of the treatment of pleurisy by aspiration with illustrative cases.

COMPLICATIONS IN LABOR.—Dr. F. N. BRAMAN then presented a very able and interesting essay on this subject, which showed considerable original research. He discussed hour-glass contraction, external version, the use of the fillet around the shoulders, and described its use in fixing and giving entire control of the body of the child in rotation by placing the fillet around the body of the child.

The paper was discussed by Professor BECKWITH, who stated that the use of the fillet around the shoulders was well known, and in general use, but its use around the body was original with Dr. Braman ; but he considered it of no advantage over the use around the shoulders, theoretically, as all the force the child's body could stand could be thus exerted.

Dr. BRAMAN stated that he did not use it to obtain more force in traction, but as an aid in rotation, gaining by its use complete control of the body of the child, which the fillet around the shoulder would not always, if ever, give.

THE TREATMENT OF INTERMITTENT FEVER.—Dr. A. BEARDSLEY then presented a paper on this subject, and narrated a course of treatment which had been successful in his hands when quinine had failed. It was, in brief, an alterative purgative, aloes, blue mass, and capsicum, in equal parts, to be used freely, sometimes substituting calomel for the blue mass, an aromatic tonic combined sometimes with an alkali, and boneset tea drank freely several times a day.

The doctor wrote from a long and wide experience, and claimed success where quinine, pushed even to twenty grains two or even three times a day, had failed. The treatment seemed to be original, as no one who was present had followed it. The benefit of a mercurial purgative in commencing treatment was quite generally conceded.

After several minor matters of business were transacted, the society adjourned, for the annual dinner at the United States Hotel.

The session was unusually well attended, and the convention, on the whole, was one of the most satisfactory yet held. The society is to be congratulated upon its prosperity.

AMERICAN MEDICAL ASSOCIATION.

[BY TELEGRAPH TO THE NEW YORK MEDICAL JOURNAL.]

THE thirty-fourth annual meeting was held at Cleveland, O., on Tuesday, Wednesday, Thursday, and Friday, June 5, 6, 7, and 8, 1883.

Tuesday—First Day.

Dr. X. C. SCOTT, Chairman of the Committee of Arrangements, introduced the Right Rev. Richard Gilmour, Bishop of Cleveland, who invoked the Divine blessing on the meeting of the association.

Dr. Scott then introduced John A. Atlee, M. D., of Pennsylvania, president of the association.

GENERAL MEYER'S ADDRESS OF WELCOME.—Amid the welcoming applause the President stepped forward, bowed his thanks, and introduced General Edward C. Meyer, the eloquent soldier, who made a deep impression upon his audience and was frequently interrupted with applause. General Meyer closed by giving the gentlemen a most cordial welcome to Cleveland, and wishing them God-speed in their noble work.

At the conclusion of General Meyer's address of welcome, President Atlee invited the vice-presidents and ex-presidents to the stage, after which Dr. Scott announced the programme for the entire session, and stated the places of meeting assigned to the different sections of the association. All protests relating to the erasure from the roll of the names of those who had not signed the code of ethics were referred to the Judicial Council.

THE PRESIDENT'S ADDRESS.—Gentlemen of the American Medical Association: Permit me to express my feelings of gratitude for the unexpected honor conferred upon me at the last meeting of the association, and to cherish the hope that in fulfilling the duties of this responsible position I may be sustained by your cordial co-operation. We meet here to engage earnestly in furthering the interests and objects of the medical profession. We have come together from all parts of our broad country charged with these great responsibilities. It is fitting to express here deep regret at the absence from our councils of delegates from the Medical Society of the State of New York. Let us hope that this absence may be only temporary, and that at the next meeting every State may be represented. [Applause.]

As specialties are so much in favor at the present time, I have thought it well, though far from favoring them on ordinary occasions, to bring prominently forward in my address to-day my own rare specialty, namely: that of being a graduate of sixty-three years' standing. Instead, therefore, of calling your attention to the more scientific subjects that are generally considered upon such an occasion as this, it has occurred to me that some reminiscences of my early medical life might not be wholly unacceptable or devoid of interest and instruction. [The President here indulged in a lengthy but pleasant recital of his early career, after which he continued, with the garrulity and, as he expressed it, the privilege, of an oldest brother, to present some reminiscences of his college life.]

Before I close this address, let me briefly call your attention to some other subjects, which in my opinion are pressing and important. Let me impress upon the mind of every member of the profession the necessity of strict and undivided attention to the duties of this high calling. Let no outside influence operate to interfere with those duties. When you undertake the care of a patient, your whole duty belongs to him; the intermission of a single visit, occupying time which on your part may have been devoted to pleasure, may sacrifice the life of your patient. Above all things, ever strive to maintain the honor and dignity of the profession. Let no selfish or ordinary consideration deter you from observing the laws laid down in our noble code of

medical ethics, cultivate friendly relations with your local medical brethren, more particularly the younger, and regulate your intercourse with all men in such a way that no stain shall be cast upon the honor of the profession, which is in your keeping.

In my day, previous to the establishment of medical societies throughout the country, before the organization of the American Medical Association and the general adoption of the code of ethics, I saw many disastrous effects from the want of brotherly consideration and kindness. The medical men of that day were often in difficulties: patients would be taken from one physician to another without ceremony, and so great was the jealousy existing between them that for more than twenty years after my graduation it was impossible to form a medical society in my native city and county, because there were so many aspirants for the honors.

Here let me speak of some of the difficulties I had to encounter in my early professional life. Instead of being taken by the hand by the older physicians, every obstacle was thrown in my path. Consultations were refused, and the treatment of my patients was unfavorably criticised. By the establishment of medical societies and the adoption of the code of ethics a wonderful change has been effected; we now feel it our duty to sustain our younger brethren, to treat them with courtesy, guard them from error, and encourage them in all their good works. Had the adoption of the code of ethics had no other result than this, it would have been an invaluable blessing to the profession. But it has accomplished more. It has put the seal of condemnation upon all "isms," and developed an *esprit de corps* that has enlarged the boundaries of our sphere, and greatly increased the usefulness and social standing of the profession. [Applause.]

Now, gentlemen, before concluding let me state that, being aware that reports and papers upon many important topics connected with the different departments of medicine will be presented by the chairmen of the sections and by individual members, I have not entered upon the discussion of any subject, either medical or surgical. Our meetings are for the purpose of promoting social intercourse as well as the advancement of medical science, but we should devote sufficient time to the discussion of the various subjects presented to us, and all of them may be greatly interfered with by social entertainments. One word more and I have done—and I say it chiefly as a word of encouragement to the younger among you. At the close of a long life devoted unreservedly to the practice of medicine, I will say that, notwithstanding its uncertainties, its anxieties, its fatigues, its bitter disappointments, I am completely satisfied that in no other career can a man more fully accomplish his whole duty to God and to his fellow-men, so that, when his life here is ended, it can be truly said of him, as—be it spoken with all reverence—was said of Him whom we should all imitate, *pertransiit benefaciens*.

Trusting that our proceedings may be both harmonious and profitable to us all, and thanking you again for the honor you have conferred upon me, I sincerely hope that the recollections which we shall carry home with us will be most agreeable and lasting. [Continued applause.]

THE PRESIDENT here announced that any member present who had papers to present would please hand them in and they would be referred to the different sections.

On motion of Dr. HEDGE, of Pennsylvania, the members of the Ohio State Medical Society were invited to seats on the floor.

Dr. SCOTT here gave a list of the railroads that gave reduced rates.

On motion of Dr. KILLEN, of Arkansas, an expression of thanks was tendered to President Atlee for his address, and the address was referred to the Committee on Publication.

Dr. J. S. BILLINGS presented a communication from the secretary of the British Medical Association, which was referred, on motion of Dr. Billings, to the Committee on Atmospherical Conditions and their Relations to the Prevalence of Diseases.

Dr. H. D. DIDAMA, of Syracuse, N. Y., presented a paper from Dr. J. H. Tyndale, of New York, in which Congress, the Secretary of War, and the Signal Service Department were petitioned to appoint a committee of five professional gentlemen to establish climate observations at the various health resorts for the benefit of pulmonary invalids. On motion of Dr. Didama, the petition was laid on the table, to be taken up for discussion in the Wednesday morning session.

On motion of Dr. ROBERTS, the secretary was instructed to call the roll. Some slight objections were made to the reading, but they were finally waived. After roll-call, the various State delegations met and selected representatives to serve on the Nominating Committee for officers of the association for the coming year.

COMMITTEE ON NOMINATIONS.—The following delegates were elected as a Nominating Committee; Dr. H. D. Didama, of New York; Dr. Alexander Harris, of Virginia; Dr. E. H. Gregory, of Missouri; Dr. Eugene Foster, of Georgia; Dr. D. G. Roberts, of Tennessee; Dr. R. A. Watson, of New Jersey; Dr. C. Johnson, of Wisconsin; Dr. W. C. Robertson, of Iowa; Dr. F. K. Owen, of Michigan; Dr. T. M. Hills, of Connecticut; Dr. William Beach, of Ohio; Dr. A. J. Fuller, of Minnesota; Dr. C. A. Savory, of Massachusetts; and Dr. L. S. McMurtrie, of Kentucky.

The meeting then adjourned until Wednesday at 9.30 A. M.

(To be continued.)

Letters to the Editor.

THE RECENT ACTION OF THE ACADEMY OF MEDICINE.

NEW YORK, June 2, 1883.

To the Editor of the New York Medical Journal:

SIR: In the "Ephemeris" for May, 1883, Dr. Squibb, in a most excellent article on the recent action in the Academy, advances certain ideas which must strike every one as singularly wise and timely.

In defending the propriety of this action, he shows that it is inconceivable that any candidate could be acting in good faith who should say: "I will yield loyal submission to the by-laws of the Academy while they continue in force, notwithstanding I believe them to be in some points unwise and injurious to the best interests of the profession, and notwithstanding I intend to use my influence in all legitimate and proper ways to bring about their amendment." Such a position being utterly absurd, the idea that there is any injustice or indelicacy in assuming in advance that he would break his promise at the first opportunity is only on a par with the cant about "more refined ethics," etc., of which we have had a surfeit. Such notions are put forward by impracticable sentimentalists who are incapable of the vigorous and wholesome hatred of medical heretics which should be handed down to coming generations as the only bulwark of professional dignity.

Another very valuable point made by Dr. Squibb is this: that signing the constitution and by-laws of a society carries with it a pledge to support them unchanged and unamended, and that the only way of escape from this obligation is to resign. The great value of this position from a conservative point of view is at once apparent. Nothing could be more admirably calculated to insure stability and to prevent dangerous innovations. If the Academy will have the wisdom to adopt this principle into its organic law, it will prove an anchor to keep it from being carried along in the current of new ideas which threatens to sweep away so many of our time-honored and revered traditions.

Dr. Squibb deserves and will receive for this admirable article the hearty thanks of all those in the profession who do not allow fanciful ideas of "progress" to obscure their sense of what is due to themselves and to the ancient guild to which they belong.

BOURBON.

Miscellany.

TWO QUACK DOCTORS.—"On the 14th of March last a certificate was issued by the State Board of Health entitling one Julius Nothhelfer, of 701 Pine Street, St. Louis, to practice medicine and surgery in Illinois. The application for this certificate was based upon an affidavit that Nothhelfer was a graduate of the St. Louis Medical College, and this was corroborated by a letter from a member of the faculty of that institution, in which he says: 'I can sincerely indorse Dr. Julius Nothhelfer, a graduate of the St. Louis Medical College at the session of 1879-'80, as to his moral and professional character and standing.' In his first letter, March 7th, Nothhelfer states that he intends 'to practice in a country town in Illinois.'

"On the 24th of the same month a similar certificate was issued to one Joseph Fitzgerald, also of 701 Pine Street, St. Louis, and this was granted upon an affidavit that Fitzgerald graduated from the Royal College of Surgeons, Ireland, in 1871. The affidavit was accompanied by a number of letters 'bearing testimony to the capabilities of Dr. Fitzgerald as a medical man . . . eminently suited to take charge of any institution requiring a courteous and skillful medical officer.' These were all written in Dublin, none later than 1874; and, as this was not deemed recent enough by the secretary, a rather cautiously worded letter was forwarded by Fitzgerald from a prominent St. Louis physician, its reticence being plausibly explained by Fitzgerald on the ground of the latter being a stranger in that city. Fitzgerald requested that his certificate be sent to Belleville, St. Clair County, where he proposed to practice.

"Last week the attention of Dr. Rauch, the secretary of the State Board, was attracted by a large three-column, four-paged circular, headed 'The Great Surgeons, Drs. Nothhelfer and Fitzgerald, late of London, Eng., graduates of King and Queen's College, will be at the Commercial Hotel, 100 to 104 Lake Street, Chicago, for one month. Terms for treatment, cash. Charges from \$10 to \$500, owing to the requirements of the case.'

"In this circular they not only promise to cure every imaginable disease, but offer \$500 reward for an incurable case. Inferentially, it is the bulletin of the 'St. Louis Medical and Surgical Institute,' an establishment which, it is safe to say, has no tangible existence, but which, in this sheet at least, is equipped with the 'most perfect surgical instruments and appliances, furnishes the most approved methods of treatment, and treats successfully the great majority of those diseases and deformities considered and given up as incurable.' Everything is done by 'new methods of treatment, new and recently invented instruments, and new and recently discovered remedies.' Some of the passages are unique even in quack literature. For example, the section on 'diseases of the sexual organism.' This is headed 'Manhood and Womanhood. The worst cases completely restored to health and the enjoyment of life,' and closes, after the usual disgusting recital, as follows: 'We would invite the attention of those of either sex afflicted in this manner to our new and successful method of treating this class of diseases,' and 'guarantee a positive and permanent cure' in every case of 'Manhood and Womanhood.' Of course, correspondence is solicited after the usual method and for the usual purposes of the infamous fraternity; consultations are free, and every imaginable device is employed to entrap the victim. What is meant by 'consultation free' was tested yesterday, when they offered to visit and prescribe for an imaginary patient gratis, but would charge \$10 for the medicines.

"The case is such a flagrant one, and comes so clearly within the authority of the Board, unhampered by the 10-year exemption clause, which shields the Drs. James Kean, Clark, and others, that the secretary laid the facts at once before the individual members and received

their prompt authorization to revoke the certificate. After to-day, therefore, any professional act performed by 'the great surgeons, Drs. Nothhelfer and Fitzgerald,' in the State of Illinois, will subject them to fine and imprisonment in the county jail."

The foregoing was published in the Chicago and St. Louis morning papers of May 2d. Before noon of that day the street distributors of the circular had been arrested, and within twenty-four hours Nothhelfer and Fitzgerald had fled. It is understood they went to Milwaukee.

THE PATHOLOGY OF NOMA.—"The possibility of the dependence of noma on the presence of micro-organisms," says the "Lancet," "is certainly not small. More than the usual number of difficulties would, however, appear to surround the investigation of this severe disease. Inducing gangrene at an early stage of its procedure, the disease tends to become mixed up with a septicæmia or sapræmia, the outcome of the putrefactive changes in the necrosed tissues. So that organisms found at the site of the local disease or in the circulatory fluids of the body, unless they assume morphological appearances of an unusual kind—apparently a very unlikely occurrence—might either be specifically related to the disease or be nothing more than septic bacteria. Hence we are not disposed to place much reliance on some recent investigations made by Batta Segale. Micrococci and bacilli were demonstrated in the detritus obtained from the gangrenous sore; moving rods and vesicular corpuscles of a bluish tint were detected in the liquor sanguinis of some blood obtained from the tip of the finger. The bacteria were cultivated outside the body. Inoculations were performed on male and female guinea-pigs; in the former some blood from a diseased child was injected into the external jugular vein; the blood of the animal soon after was found to contain bacilli. Nevertheless, recovery ensued. The female guinea-pig was inoculated in the lower lip with the contents of a Pravaz syringe filled with fluid in which the bacteria had been cultivated. The following day gangrene appeared at the site of vaccination. Examination of the detritus of the affected part detected numerous micrococci, vibrios, and a few bacilli, all endowed with an oscillatory motion. The blood was normal till the eighth day, when some rod shapes were observed. Notwithstanding, the animal recovered. We need hardly point out the sources of fallacy in the observations sketched above. There would be but little objection to the notion that purely septic fluids and bacteria would be quite competent to explain the whole of the phenomena observed. The vesicular corpuscles mentioned possibly owed their blue tint to the non-use of an achromatic condensing lens. Neither the kind nor the powers of the microscope employed are named, nor is anything said of the sort of fluid used for cultivation. Although much may be learned from the employment of the simple forms and only moderate powers of ordinary microscopes, there can be no doubt that a condensing lens of achromatic properties, with a homogeneous medium, obtained either by oil or water immersion lenses, has now become essential for really efficient high pathological work."

HAMMER CRAMP.—At a recent meeting of the Medical Section of the Academy of Medicine in Ireland, a report of which we find in the "British Medical Journal," Dr. R. McDonnell showed a young man, aged twenty-two, whose right arm was subject to muscular spasms. He was a nailer, and had been, since he was eleven years old, more or less hard at work at this occupation. The spasmodic jerking of the muscles, which interfered with his occupation, began about seventeen months ago, and, after the first three months, became so violent that he had to give up work altogether. The case was one of functional spasm unaccompanied by pain. This was an affection very similar to writer's or scrivener's cramp, although all the muscles supplied by the brachial plexus seemed to be affected, and those around the shoulder joint, especially the great pectoral, seemed to be most so. The treatment consisted in regular, orderly, rhythmical movements of the limb, as was successful in a very similar case reported by Dr. G. V. Poore in the "Practitioner" for September, 1872.

BINAURAL STETHOSCOPES.—That there is "nothing new under the sun" receives a fresh illustration in an old binaural stethoscope to be seen at Messrs. Caswell, Hazard & Co.'s, in the possession of Mr. Ford, the instrument-maker, who thinks that it was made in France certainly

before the present century. In great part it is made of silver, the ornamentation of which indicates its age. It is almost the exact counterpart of the instrument devised by the late Dr. Cammann, the flexible tubes being made of spiral wire covered with velvet. It lacks the ear knobs. The degree of approximation of the ear tubes is maintained by means of a set-screw.

PLEURO-PNEUMONIA AMONG CATTLE IN THE DISTRICT OF COLUMBIA.—Contagious pleuro-pneumonia having been reported to have broken out in Washington, the Department of Agriculture and the District Board of Health are co-operating in an investigation. Dr. Townshend, of the Board of Health, has made an autopsy that leads him to the conclusion that the cow examined was affected with the disease in question; but Commissioner Loring and Dr. Salmon, of the Department, are not convinced. At all events, we are assured that the disease is not widespread as yet.

THE ILLINOIS STATE MEDICAL SOCIETY AND THE STATE BOARD OF HEALTH.—At the recent annual meeting of the Illinois State Medical Society, the following preamble and resolutions were unanimously adopted:

Whereas, The Illinois State Medical Society was deeply interested and took an active part in promoting the formation of the State Board of Health, and the result of its work since its organization fully justifies the expectations of its originators in protecting the public from professional ignorance and imposition, from epidemic diseases and various other causes prejudicial to life, and in the promotion of a higher standard of medical education, thereby placing Illinois in the front rank among her sister States in this respect; and

Whereas, This result is largely due to the personal sacrifices of the members of the board, the appropriations by the State heretofore having been insufficient to carry out the duties imposed upon it by the law; therefore, be it

Resolved, That, in the opinion of this society, it is the duty of the Legislature of this State to make such appropriations as will enable the board to carry out the important duties assigned it by the act creating the State Board of Health and the act to regulate the practice of medicine.

Resolved, That a copy of this preamble and resolution be sent the members of the Legislature now in session.

THE FRENCH ACADEMY OF SCIENCES.—At an election recently held to fill the vacancy in the Section of Medicine and Surgery caused by the death of M. Sédillot, on the first ballot the vote stood: whole number, 57; necessary to a choice, 29; M. Richet had 22, M. Brown-Séquard 18, M. Jules Guérin 14, M. Sappey 2, M. Charcot 1. On the second ballot the whole number was 58; necessary to a choice 30; M. Richet had 32, M. Brown-Séquard 23, M. Jules Guérin 3. M. Richet was, therefore, declared elected, subject to the approval of the President of the Republic.

THE COLLEGE OF PHYSICIANS AND SURGEONS OF CHICAGO.—Professor William E. Quine has resigned his chair in the Chicago Medical College, and has accepted the chair of Practice of Medicine in the College of Physicians and Surgeons of Chicago.

THE NEW YORK POST-GRADUATE MEDICAL SCHOOL.—Dr. William J. Morton, after a year's successful teaching, has resigned the Associate Professorship of Diseases of the Mind and Nervous System in the New York Post-Graduate Medical School. Dr. Charles L. Dana, Professor of Physiology in the Woman's Medical College, has been elected to share the chair of Mental and Nervous Diseases with Dr. William A. Hammond.

THE MEDICAL SOCIETY OF LOUISVILLE.—This is the name of a new medical society in Louisville, Ky., of which Dr. Preston B. Scott has been elected president, Dr. L. P. Yandell first vice-president, Dr. Coleman Rogers second vice-president, Dr. W. B. Doherty secretary, and Dr. D. W. Yandell, Dr. Turner Anderson, Dr. H. K. Pusey, Dr. William Bailey, and Dr. J. A. Oetzelony a judicial council.

THE NEW YORK DERMATOLOGICAL SOCIETY.—At the recent annual meeting the following-named gentlemen were elected officers for the

ensuing year: President, Dr. P. Albert Morrow; Secretary, Dr. W. T. Alexander; Treasurer, Dr. F. D. Weisse; Executive Committee, Dr. R. W. Taylor, Dr. E. B. Bronson, and Dr. G. H. Fox.

THE WOMAN'S MEDICAL COLLEGE OF THE NEW YORK INFIRMARY.—The following-named ladies were graduated at the recent commencement: Augusta A. Field, of Pennsylvania; Julia G. F. McNutt, of New York; Sarah R. Mead, of New Jersey; Harriet Post, of Wisconsin; and Maria B. Patterson, of New York.

THE AMERICAN SURGICAL SOCIETY AND THE CODE QUESTION.—At the annual meeting of this society, held in Cincinnati last week, on motion of Dr. Kinlock, of South Carolina, the secretary was directed to communicate with every member, asking him his views on the code question, and, in case he was not prepared to support the code of ethics of the American Medical Association, requesting him to resign.

THE MARINE HOSPITAL EXAMINATION.—The following-named applicants are announced as having passed the examination: Dr. Arthur D. Bevan, of Chicago; Dr. A. H. Glennan, of the District of Columbia; Dr. Eugene Wasden, of South Carolina; Dr. K. P. Battle, of North Carolina; Dr. S. D. Brooks, of Massachusetts. There being only one vacancy, it is understood that Dr. Bevan will receive the appointment, the others to wait for vacancies in the order mentioned.

THE CARE OF THE INSANE IN PENNSYLVANIA.—The Pennsylvania Senate has passed the House bill providing for the removal of the indigent insane from almshouses to State hospitals.

A PROPOSED VACCINE INSTITUTION IN PARIS.—The sanitary council of the Department of the Seine have appointed a commission to devise a plan for the establishment of an institution for supplying vaccine in Paris. The actual realization of the scheme, however, requires the approval of the administration.

DR. ROOSA'S RESOLUTION ANTICIPATED.—Our attention has lately been called to an address delivered before the Maine Medical Association in June, 1880, by the president, Dr. Seth C. Gordon, of Portland, in which we find the following passage:

"Now and then we find the man of age and experience who looks upon the younger members as intruders, and, like the 'Pine Ridge practitioner,' treats them strictly according to the code. For such men are codes made, and, so long as the profession contains many of them, I suppose we must have our written law. I shall hope to see the day when much of the present code of ethics adopted by the American Medical Association may be expunged, and each man become a law unto himself. The military profession has comparatively few written statutory laws defining and punishing offenses. There is a certain *esprit de corps* which puts every man upon his personal honor in all his relations with his brother officers and the world about him. The general charge of 'conduct unbecoming an officer and a gentleman' covers a very large majority of all misdemeanors. The golden rule, of doing unto others as you would that they should do unto you, is the foundation of the best code of ethics that any body of men could adopt. Will the time ever come when 'conduct unbecoming a physician and a gentleman' will have as much meaning and as much force in our profession as the former has with our 'brethren in arms'?"

"Our sister State (or, more properly, our venerable mother), Massachusetts, has taken a step in the right direction on this matter of code—very much simplifying and abbreviating the old law. May we not do something in the same way to our advantage? There are certainly some things we should all agree upon. I would suggest that a written law often gives a dishonorable man an opportunity to try its full strength, and, without actually breaking it, he violates the spirit, leaving the 'letter which killeth.'"

"VENUS DE MEDICINE" is what the "Florida Herald" calls the late Lydia Pinkham.

DEATH OF DR. JAMES L. BANKS.—We regret to have to record the death of Dr. James Lenox Banks, which took place on Sunday, the 3d inst. Dr. Banks was one of the consulting physicians to the Presbyterian Hospital, and a member of many medical societies, in which, as well as

in matters not connected with the profession of medicine, he filled positions of trust and responsibility at various times. As a practitioner and as a man, he enjoyed the esteem and respect of all with whom he came into contact. At the time of his death he was fifty-one years of age. He had seemed to be in good health until within a week of his decease, which we understand to have been due to an attack of apoplexy.

DEATH OF DR. WOLCOTT, OF UTICA.—Samuel Gardner Wolcott, M. D., of Utica, N. Y., died on Sunday, the 3d inst., in his sixty-third year. Dr. Wolcott received his degree in medicine from the Harvard Medical School in 1850. He was one of the prominent physicians of the central part of the State.

DEATH OF DR. ROBERT DRUITT.—Robert Drutt, M. D., F. R. C. P., F. R. C. S., well known in this country as the author of "The Surgeon's Vade-Mecum," a book that for many years past has been very popular with students, died at his home in London on the 15th of May, at the age of sixty-eight years. For a period of ten years Dr. Drutt was the editor of the "Medical Times and Gazette," which journal speaks in feeling terms of his decease.

ARMY INTELLIGENCE.—*Official List of Changes of Stations and Duties of Officers of the Medical Department, United States Army, from May 26, 1883, to June 2, 1883.*—HEGER, A., Major and Surgeon. Assigned to temporary duty in charge of the office of Medical Director, Department of the South, during absence on sick leave of Medical Director. Par. 9, S. O. 55, Department of Texas, May 24, 1883. — BROWN, PAUL R., Captain and Assistant Surgeon. The extension of leave of absence on surgeon's certificate of disability granted November 23, 1882, further extended six months on account of sickness. Par. 6, S. O. 123, A. G. O., May 29, 1883.

NAVAL INTELLIGENCE.—*List of Changes in the Medical Corps of the Navy during the week ending June 2, 1883.*—Passed Assistant Surgeon D. O. Lewis detached from the McArthur, United States Coast Survey steamer, and ordered to the Marine Rendezvous, San Francisco, Cal. — Passed Assistant Surgeon F. C. Dale ordered to the United States Coast Survey steamer McArthur. — Medical Directors J. M. Browne and A. L. Gibon ordered as delegates to the meeting of the American Medical Association at Cleveland, Ohio, June 5, 1883.

SOCIETY MEETINGS FOR THE COMING WEEK.—*Monday, June 11th:* New York Medico-Historical Society; New York Ophthalmological Society (private). *Tuesday, June 12th:* Massachusetts Medical Society (Boston—first day); Jersey City Pathological Society; Newark Medical Association; East River Medical Association (private); New York Academy of Medicine, Section in Surgery; New York Surgical Society; Medical Society of the County of Chemung, N. Y. (Elmira—annual); Medical Society of the County of Chenango, N. Y.; Medical Society of the County of Delaware, N. Y. (annual); Medical Society of the County of Erie, N. Y. (Buffalo); Medical Society of the County of Genesee, N. Y. (annual); Medical Society of the County of Livingston, N. Y. (Genesee—annual); Medical Society of the County of Onondaga, N. Y. (Syracuse—annual); Medical Society of the County of Oswego, N. Y. (Mexico—annual); Medical Society of the County of St. Lawrence, N. Y. (semi-annual); Medical Society of the County of Schenectady, N. Y. (Schenectady—semi-annual); Medical Society of the County of Steuben, N. Y. (Bath—annual); Medical Society of the County of Warren, N. Y. (Lake George—annual); Medical Society of the County of Wyoming, N. Y. (Warsaw—annual). *Wednesday, June 13th:* Oregon State Medical Society (Portland—first day); Massachusetts Medical Society (second day); New York Pathological Society; Medical Society of the County of Cayuga, N. Y. (annual); Medical Society of the County of Cortlandt, N. Y. (annual); Medical Society of the County of Dutchess, N. Y. (Poughkeepsie); Medical Society of the County of Montgomery, N. Y. (annual); Medical Society of the County of Sullivan, N. Y. (Monticello—annual). *Thursday, June 14th:* Oregon State Medical Society (second day); Brooklyn Pathological Society; Medical Association of the Eastern District of Brooklyn; New York Laryngological Society (private); Public Health Association. *Friday, June 15th:* Oregon State Medical Society (third day).

Original Communications.

THE CLIMATIC TREATMENT OF PULMONARY CONSUMPTION; REPRESENTING THE OPINIONS OF THE PROFESSION IN REFERENCE TO CLIMATOLOGY AND CONSUMPTION.

By J. HILGARD TYNDALE, M. D.,

NEW YORK.

(Continued from page 629.)

MIDDLE ATLANTIC STATES.

Dr. Austin Flint, New York, kindly referred me to his work on "Phthisis" (1875): "In the first place, it does not appear from the analysis of my cases [670 cases of phthisis] that changes of climate have, in a marked degree, a beneficial influence, as compared with the hygienic measures available at home. In the second place, the improvement following a change appears to pertain alike to different climates and places. Hence it seems a fair inference that the benefit derived from the change is due, not so much to a climatic influence, *per se*, as to the circumstances incidental to the change. . . . Now, the climate in itself is of secondary importance; *assuming, of course, it to be salubrious, all the conditions of salubrity may be combined in numerous places situated in either a northern or southern latitude.* It is not essential to canvass the respective claims of different places in respect of climatic conditions, after having decided whether a cold or a warm climate is to be preferred. . . . Whether a cold is to be preferred to a warm climate, in particular cases, must depend upon the predilections of a patient, the past individual experience as regards the relative effect of cold and warm weather on the feelings and the general health, the ability to take muscular exercise, the power of resisting or reacting to cold. . . . *It may be presumed that a warm climate is best suited to a majority of cases.* . . .

"A favorable influence upon phthisis is exerted by a variety of climates. It would seem that the favorable influence pertains to the change rather than to the particular climate chosen. If this be true, it follows that the agencies by which a favorable influence is exerted *relate to accessory or incidental circumstances* more than to purely climatic conditions."

Dr. A. L. Loomis, New York, says, in the latest edition (1882) of his "Diseases of the Respiratory Organs": "Experience shows that one individual improves in a warm, moist air; another individual improves in a cold, dry air. . . . When, from the history of the individual, a *dry, cold atmosphere* is indicated, direct your patient to make a trial of such a climate as Minnesota. . . . Let none go to Minnesota who are unable to exercise in the open air. The climate of California (especially southern California), Colorado, certain parts of Georgia, South Carolina, etc., is well adapted to that class of phthysical patients who require a *dry, warm atmosphere.* . . . The experience of the indi-

vidual is the only safe guide in the choice of a locality best suited to his or her own case. . . ." [Of Colorado]: "Persons in the incipient stages do well; but the air is so thin and dry that it is very likely to cause hæmorrhages in those cases where they have previously existed. . . ." [Of Georgia and the pine forests]: "Undoubtedly have very much to do with the beneficial effects experienced. . . . When you decide, from the experience of a phthysical patient, that a *warm, moist climate* is required, let him go to the Bermudas, or to some of the West India islands, or to the eastern portion of Florida. Under the head of a *cool and moderately moist climate* I know of no region that my experience during the past few years of its effects upon phthysical subjects would lead me more heartily to recommend to those likely to be benefited by such a climate than the Adirondack region, situated in the northern part of our own State. . . . *The climatic treatment of consumption is almost exclusively confined to its first stage.* . . . Frequent changes of climate are all-important in order to accomplish this result. During this stage, sometimes patients will be benefited by a long sea voyage."

Dr. Beverley Robinson, New York: "I favor a sthenic climate where the affection is not far advanced and where tendency to hæmorrhage is slight and recuperative power good. Georgia in winter; Adirondacks in summer."

Dr. Samuel G. Armor, Brooklyn: "In cases of *primary tuberculosis*, phthisis in which the constitutional symptoms of malnutrition outrun the local lung lesions, I prefer a dry, stimulating, tonic atmosphere, such as is found in Minnesota, Dakota, Montana, New Mexico, or the eastern slope of the Rocky Mountains. Above all things, such cases need a *dry, bracing, appetizing* climate. For *primary catarrhal* phthisis, in which the alveolar catarrh is the *prime factor*, the constitutional symptoms developing themselves as a sequence, I prefer a mild, soothing, sedative climate, in which the patient can live much of the time out doors. I advise such patients, when they can, to go to northern Georgia, southwestern Texas, some portions of California, etc. I am not partial to Florida."

Dr. H. D. Didama, Syracuse, N. Y.: "Some patients are so much debilitated by warm weather and feel so much better in cold weather, that I never think of sending them to Florida or Nassau. If I send them away from our delectable and variable climate, where the thermometric ranges are from 15° to 40° daily, I advise some cool, equable region. Some go to Minnesota and some to Colorado with benefit. In summer, our own neighborhood, or the North Woods, or Thousand Islands afford all that is needed. If, on the contrary, the patient feels worse as cold weather approaches, if he is pinched and unable to keep comfortable, I do not send him to the frigid zones. He goes to some milder clime, if he can afford it, or I try to make a uniform climate at home, if, as unfortunately happens, he can not afford to travel. But in the artificially equable climate in his house in bad weather, I would have the air supplied with moisture enough, so that the thirsty, dried, clamorous atmosphere would not suck all the juices of the patient away. These are briefly some of my rules:

"1. If possible, make a change early.

"2. Go where the temperature is satisfactory to the patient—invigorating or soothing, as the case may be.

"3. In incipient cases with bronchial catarrh in apex, a mountain elevation and proper instructions will, by securing chest expansion, do good.

"4. Home for the hopeless."

Dr. William T. Plant, Syracuse: "I incline to the sthenic climates for *incipient phthisis*. I think *very few actual* consumptives recover in Florida or the West Indies. Many recover in Colorado, Minnesota, etc. My opinion on this point has been formed from considerable observations, extending over eighteen years. I have directed patients to the elevated and dry regions of the far West rather than south to the Atlantic States. The result has almost always been gratifying when the patient has gone early. I have *known* several consumptives to go *early* to Florida, Nassau, etc., and they have never done well. Some have come back after a few months and gone West, where they improved. I think it quite likely that *some* cases are benefited by leaving our rigorous climate and making of Florida a *winter* residence."

Dr. Louis Elsberg, New York: "A sedative climate for patients with sensitive mucous membranes; a sthenic climate for catarrhal tendencies. In summer to Adirondack Mountains, Catskills, or, at least, where there are trees, horseback exercise, and animal food. In winter, southern equable climates, where the same requisites of beef, air, and exercise can be supplied."

Dr. Daniel Lewis, New York: "My experience is against sedative climates. The inland medium altitudes are most suitable. I send all to the eastern slope of the Rocky Mountains, if they are able to go. Some have done very well in Minnesota. Results are much the same, as in all therapeutic measures; some are benefited and others are not. I have some cases, of several years' duration, who have spent winters here and summers in the Adirondacks, and the disease is still stationary. One case remained well three and a half years in Alleghany County, N. Y., fifteen hundred feet above sea-level. Of one thing I am positive—results have been bad on the sea-coast in warm or cold climates."

Dr. Alfred Stillé, Philadelphia: "I believe that cold climates are suitable for commencing and warm for confirmed phthisis, and that sea air, except in warm climates, is, as a rule, prejudicial to all cases of consumption (tubercular). I advise a climate mild, equable, and dry. The dryness and steadiness of the places named appear to me their best qualities. [The places named were Florida, Madeira, the Bahama Islands on the one hand, and Minnesota, Colorado, New Mexico, Georgia, Texas, and California on the other.] I have usually sent the vigorous to a cold, the delicate to a warm climate. As far as possible, rapid transitions from one to the other are to be avoided, but especially from cold to heat. On the whole, I think the results of change of climate are superior to all others."

Dr. J. Solis Cohen, Philadelphia: "My habit has been to notice how the different seasons and atmospheric conditions affected the patient when at home, and to endeavor

to find a climate corresponding with the indications thus obtained. *Sea air before softening; mountain air after softening.* In the majority of cases, a cold temperature is desirable; but it must be governed by the comparative comfort of the patient under similar conditions at home. Dry, bracing climates (New Mexico, Colorado) are suitable to a majority. Always avoid sea-shore if there has been any breaking down of tissue. Send lately to Lakewood, New Jersey; to Aiken, Southern California, Mexico, and Adirondacks, even in winter. The point upon which I desire to lay most stress is this: *That sea air should be rigorously avoided as soon as there are any signs of softening in the lungs or ulceration in the larynx.*"

Dr. J. C. Wilson, Philadelphia: "For a minimum of my cases I prefer a sedative climate; for the majority a stimulating, sthenic climate. Certain insular elevated stations are of importance: Madeira, Capri. Direct patients to Las Vegas and Santa Fé, N. M., and to Aiken, S. C. Patients are less disposed to follow my advice than their own wish in summer."

Dr. E. T. Bruen, Philadelphia: "I regard the cold, dry climates at a high altitude as most beneficial for incipient phthisis, or for advanced cases, provided there is no history of hæmorrhages or much catarrhal trouble. These latter cases do better in the warmer climates near the coast. The advantages of the climate of the great West—of the Mississippi—are much depreciated by the bad hotel accommodations. Only a few localities are satisfactory on this account. A majority of cases will be most benefited by a dry, sthenic climate—Adirondacks, New Mexico, southern Colorado, northern Texas. But a large minority will be helped by such latitudes as northern Georgia or the Mediterranean. Climato-therapy with suitable food is the most satisfactory kind of treatment."

Dr. Roberts Bartholow says in his "Treatise on the Practice of Medicine" (1882): "The requisites for a climate for pulmonary invalids have been briefly stated. They are *dryness* and *elevation*. The health resorts which offer these requisites in the highest perfection are the best. Those of North Carolina, South Carolina, Georgia, the Rocky Mountain regions, California, New Mexico, offer every variety. No change of climate, however, can be beneficial, as a rule, after cavities have been formed, unless of slight extent. It is in incipient phthisis that a change to a climate dry, bracing, and elevated, really exerts a curative influence."

Dr. Samuel C. Chew, Baltimore: "I prefer, from experience, so-called sthenic climates. Send patients to mountainous regions of North Carolina and to the Adirondack Mountains in New York. Think it best, generally, to remain winter and summer."

Dr. Richard McSherry, Baltimore: "In February, March, and April, as the winter breaks up, Florida offers a good climate. No uniform rule as to directing patients. Some to Florida, some to the mountains. A consumptive, who has leisure and money, and can change his location at discretion, and does so with discretion, seeking now a cool and dry climate, and then the sea-shore, or taking a sea trip, may enjoy a modicum of health for many years."

Dr. A. Y. P. Garnett, Washington: "I prefer for those

predisposed to or threatened with the disease a mild or sedative climate, such as that found in Madeira, Bahama Islands, Los Angeles, and, perhaps, some of the piney hills of Florida, remote from the sea and bodies of water. Where the disease has become sufficiently manifest to be detected by physical or rational signs, a sthenic or bracing climate, such as found in Minnesota, some parts of New Mexico, and other dry and elevated situations; the South Pacific Ocean when practicable."

SOUTHERN STATES.

Dr. F. Peyre Porcher, Charleston, S. C.: "I would prefer in winter a climate like Aiken, or any dry, warm climate, with a porous soil, where water escaped readily; where there was sunshine and freedom from cold winds, as also is the case with pine-land settlements, and even the plantations along the coast of South Carolina and Georgia. . . . Aiken or Florida in winter; Asheville, or any cool mountain plateau, in the summer. The climate, in the winter, of the plantations on the Atlantic sea-board of South Carolina and Georgia, within fifty miles of the coast, is, I think, excellent; the 'pine-lands' perhaps better, though uninteresting."

Dr. Deering J. Roberts, Nashville, Tenn.: "A sedative climate only in advanced cases; a sthenic climate in early stages. I am in the habit of directing my patients to the *Cumberland table-land*."

Dr. J. G. Westmoreland, Atlanta, Ga.: "I favor a sedative climate. The sthenic climates are too high and cold, but better, with plenty of oily food, than warm climates without such food. Send patients to Florida or tropical islands. Would prefer keeping the same temperature summer and winter."

OHIO VALLEY.

Dr. Starling Loving, Columbus, O.: "If the patient is of sanguine or extremely nervous habit, I prefer sea air, the 'sedative climate.' Direct patients to Colorado, Minnesota, North Carolina, north Alabama, Thomasville, Ga., Nassau, and the south side of Cuba. I sent one to San Antonio, Tex., and regretted it. One has done well at Boise City, Idaho, and two or three in Wyoming. The climate here in winter is damp and exceedingly variable, so that I urge patients, whether going North or South, to go in November and not to return until the middle of April. I have known several greatly benefited by the climate of southwestern Kansas."

Dr. James T. Whittaker, Cincinnati: "Experience teaches me to prefer Nassau to all southern climates; because it is a pure sea air is the reason for the good effects, I believe. For other cases—the higher and colder the better, if general comfort can be secured—Colorado, about Denver. If I had the disease myself, I should, in the light of existing knowledge, go and *live* in the coldest, driest climate I could find, as in Switzerland near the line of perpetual snow. Of course, the disease exists there, but because, I believe, people live in-doors with artificial heat."

Dr. George E. Walton, Cincinnati: "Am opposed to a relaxing climate. Of sthenic climates, prefer northern Georgia, Aiken, S. C., Texas, southern California. Direct

patients to Mentone or Aiken during winter; summer, Colorado, Minnesota, Catskills. Unfortunately, we have not the meteorological facts or medical facts to make valuable conclusions."

Dr. D. N. Kinsman, Columbus, O.: "Favor a stimulating, tonic climate. Direct patients to the Northwest. My experience has not been very favorable."

Dr. H. von Sweringen, Fort Wayne, Ind.: "I most emphatically favor that climate which is marked by an *evenness* of temperature, even though it be a little too cold in winter or too warm in summer. Florida in winter, the North in summer. I have never given any *special* attention to climato-therapy in the treatment of phthisis, for the reason that I have never had very much confidence in it. The more *temperate* the climate, however, the less disposed to *rapid* and *great* variations of temperature, the better, certainly, for consumptives."

Dr. L. P. Yandell, Louisville, Ky.: "No faith in Florida. I should prefer the dry climates of parts of Texas and New Mexico—wherever there is least malaria. Considering the vast advantages of being sick at home, rather than at poor hotels away from home, the superior household and culinary comforts of home, I usually prefer to keep my patients at home. I consider the majority of cases of consumption curable by means of the constructives, i. e., oils internally and externally, hypophosphites and maltine, and tempting foods. This is my experience in private practice here."

Dr. John J. Speed, Louisville: "Eastern slope of the Rocky Mountains and northern Georgia good; but the *want* everywhere is equable climate. Direct patients to the climate which is cool and equable. If not equable, you can not *use* it; and this use gives you sunlight, fresh air, and out-door life, which three factors are the prime ones. Stimulated nerve-force, stronger heart-beat, deeper chest-expansion are had, and these give increased appetite and better nutrition."

Dr. M. F. Coomes, Louisville: "I am in favor of such a climate as is found in the orange-belt of Florida; I also favor the so-called sthenic climates for certain cases. From November to May I recommend them to go to the orange-belt of Florida (*Palatka, Deland, Gainesville, and Fort Mead*), or to the temperate portions of *California*; and I occasionally advise my patients to make these localities their permanent homes, if the climate is particularly agreeable to them. From May until October or November I recommend them to Red Sulphur Springs, in West Virginia, where they get the mountain air and the benefits of the water. Also to Minnesota, New Mexico, or Colorado. In many cases I recommend them to change their homes twice a year."

LAKE REGION.

Dr. Thomas F. Rochester, Buffalo, N. Y.: "A cool and equable climate is the best, with some exceptions. I have had better results in southern California than elsewhere; next in Colorado, and fair in the Adirondacks, which are high but moist. I am inclined to believe that the enforced exercise treatment (as at Davos) is a very important factor in the treatment."

Dr. H. R. Hopkins, Buffalo: "In certain cases a seda-

tive climate; in general, not. Give preference to sthenic climates (those mentioned in my circular). Dryness, sunshine, and purity of air do the work, in my opinion."

Dr. John Bennett, Cleveland, O.: "Prefer a sthenic climate; Colorado (Denver, Golden, etc.), southern Minnesota, pine regions of South Carolina, away from the lowlands. East Tennessee when practicable. Advantage, more or less permanent, has been observed to come from removal to each of the places named, where the residence has been long enough to be in any degree a test."

Dr. H. J. Herrick, Cleveland, O.: "I am in favor of the climate of western and northern Texas, Colorado, the mountains of the Carolinas or northern Georgia. Am in the habit of directing patients to the above localities. I regard out-door life, with prudent exercise and correct diet, important considerations in the treatment of incipient tubercular phthisis."

Dr. E. L. Shurley, Detroit, Mich.: "From experience, I believe a sedative climate more beneficial for cases characterized especially by terrible cough. Do favor a stimulating climate where air is dry and changes of temperature, etc., are not great. Direct patients to no particular locality, but decide according to condition of the patient, accommodations of the place, previous mode of life, predilections of patient, etc. Temporary residence in favorable climate has, according to my experience, only temporarily prolonged life where real phthisis existed, while a permanent residence has evidently effected a cure in many cases."

Dr. David Inglis, Detroit, Mich.: "Favor a stimulating, nic climate: Texas and southern California. When possible, advise permanent residence in such climates; when not, advise to go by November 1st, and *not to return North until well into June*. The general mistake is in coming North too early in the spring. Unless the patient goes before the third stage has set in, and also unless he has sufficient vigor to engage in considerable out-of-door exercise, it is better for him to remain amid the comforts and attentions of home."

Dr. N. S. Davis, Chicago: "For some patients, a sedative climate; for the majority of cases, a sthenic one. I regard a judicious change of climate in the first stage of consumption of the highest value in arresting the progress of the disease. But the change should be *long-continued*, in order to render the effects permanent."

Dr. H. M. Lyman, Chicago: "The mild climates are useful when patients have been long imprisoned in-doors by a severe northern winter; but for a permanent residence the inland regions are preferable. Direct patients to Colorado and New Mexico, unless it be desirable to go South for the reason above mentioned."

Dr. E. Fletcher Ingals, Chicago: "In a few cases *only* I prefer sedative climates, but in the great majority of cases of early (first and second stage) consumption I much prefer the 'sthenic' climate. According to the indications in individual cases, as judged by their apparent vitality, the bronchial affection and past history, I direct them to most of the regions mentioned. But the majority are sent to Colorado, New Mexico or Arizona, Texas, southern California, Tennessee, Georgia, Minnesota, and Florida.

These I have given, as nearly as possible, in order of frequency."

Dr. J. N. Danforth, Chicago: "I prefer a cool climate, with some constant incentive to exhilarating exercise. With my phthisical patients any change is tentative, and they so understand it; but a sthenic climate seems to benefit the greatest number. Travel, change, novelty, and the consequent excitement, generally benefit, and, I think, form the main parts in climato-therapy."

Dr. James P. Ross, Chicago: "Favor a stimulating, tonic climate—southern California or San Antonio, Tex. I send patients away in winter and spring."

Dr. Roswell Park, Chicago: "Prefer sthenic climates. I tell patients to go where the conditions of a *temperate* climate, with proper *dryness* and freedom from sudden changes, can be found, no matter if the locality has no 'reputation.' I like the mountain region of Tennessee."

Dr. Alonzo B. Palmer, Ann Arbor, referred to his recent work on "Practice of Medicine," in which he says: "There must be a certain good degree of digestive power, or a prospect of soon obtaining it. . . . Comparative youth and vigor are required. In comparatively early periods of chronic cases there can be no doubt of the beneficial effects of elevated, dry, cool, electrical, stimulating, climatic situations (Rocky Mountains, Col.). For those more impressible and delicate, New Mexico. In bronchial, pneumonic, and other inflammatory cases, a sojourn in Florida, Santa Barbara, or Georgia. In the treatment of ordinary cases of chronic tuberculosis, *cool* and *dry* climates give better results than *warm* and *moist*. A particularly equable temperature must not be insisted upon except in bronchial and inflammatory cases, as equability presupposes moisture, which is far less favorable to the tuberculous condition."

THE NORTHWEST.

Dr. Jay Owens, St. Paul, Minn.: "Do not favor a sedative climate. Florida is covered with consumptives' graves. A sthenic climate, such as Minnesota in summer, and the Valley of the Rio Grande River, in New Mexico, in winter. Dryness is the great curative factor. Patients do not take cold in a dry atmosphere, if they are reasonably careful. From personal experience, I know a *dry* atmosphere to be of great advantage. I know of many cases of recovery by those afflicted coming to Minnesota early in the disease. I send my patients to Socorro, N. M., in the winter, and they come back much improved."

Dr. Alexander J. Stone, St. Paul: "I prefer in certain cases your so-called sthenic atmosphere, varied, according to condition of patient, from the warm, dry, and pure air of the Georgia Highlands to the cooler, more bracing (tonic) atmosphere of Colorado, Minnesota, or, most notably, *Montana*. The majority of cases met with in Minnesota are imported, and remain here; occasionally one finds the climate unsuitable, and is sent northwest or southeast, as indications determine. Aboriginal cases are always sent from home."

Dr. D. W. Hand, St. Paul: "Favor a sthenic climate. Direct patients to Las Vegas, N. M.; Aiken, S. C.; Thomasville, Ga."

Dr. George F. French, Minneapolis, Minn.: "Sedative

climates for hæmorrhagic cases. Have saved a wife, pronounced incurable by several eminent diagnosticians, by changing climate from Portland, Maine, to Minneapolis. Here three years."

Dr. W. S. Robertson, Muscatine, Ia.: "Prefer the medium altitudes of New Mexico and Colorado: the country around Colorado Springs and Manitou. Dryness is an important element (most important). The climate spoken of has given me excellent results. Don't think any of these are *life-giving*, but *life-prolonging* localities."

Dr. W. I. Heddens, St. Joseph, Mo.: "From experience, I prefer a mild climate for advanced cases—Florida. A 'stimulating tonic' for incipient cases, as New Mexico, Colorado, California—where a *dry, cool* atmosphere exists—avoiding all 'health resorts' and cities. Of the results of climatic treatment: *Only in the very incipency*, and, I may say, before that even, is it at all reliable, and in the advanced stages it hastens the death of the patient."

MISSOURI AND MISSISSIPPI VALLEY.

Dr. E. W. Schauffler, Kansas City, Mo.: "Generally the stimulating climates. Should think the mild climates might suit the advanced cases better. Dryness is a most potent factor, with abundance of sunshine. Do not think the winds do very much harm. Direct patients chiefly to Colorado Springs, Col."

Dr. P. Gervais Robinson, St. Louis: "I favor a stimulating, tonic climate at medium altitude, my opinion being based both on experience and principle—northern Georgia and South Carolina—Aiken, S. C., in winter, Minnesota in summer. The results of my experience are very encouraging."

Dr. William C. Glasgow, St. Louis: "I look for the fresh, stimulating, tonic air; tonic and stimulating to improve the general bodily nutrition, and sufficiently rarefied to cause an increased and full expansion of the air vesicles. I have not accepted the 'germ theory.' I consider the soft, mild climates (humid) as disastrous to cases of real phthisis: they suit bronchitis and *uncomplicated* laryngitis. I prefer always a stimulating, dry climate. The choice of high altitudes or lesser degrees of elevation depends on the individual case. When general inflammation of mucous membranes is present, I consider the high altitudes positively injurious. Cases with laryngitis do badly in Colorado. For such cases I prefer the highlands of Texas, and, after this, southern California and northern Georgia. Where malnutrition and want of bodily vigor are prominent factors, I like a short stay in high altitudes, then a continued stay at a moderate elevation—three thousand to four thousand feet. Besides the above named, direct patients to New Mexico and Minnesota. I like patients to change climates—summer in one place, winter in others. I never send a patient away from home with *acute symptoms*; subdue these, start arrest, and then he is ready to travel. I consider an important factor in the choice of a climate to be in the possibility of obtaining good, digestible food and cheerful society or amusement, also of obtaining light employment. My experience has been favorable. Some cases seem absolutely arrested, in others life has been prolonged by years. The highlands of Texas

have given the most favorable results; next, New Mexico and southern California. But the cases must be sent to proper climates, and must absolutely renounce a return to the home climate. They are exiled from home. Even a prolonged visit to the home climate has, in my experience, relit the disease."

Dr. G. Baumgarten, St. Louis: "Soothing climate only for nervous persons. Have seen good results from parts of Texas; also some good, and more very bad, results from Colorado, the latter in nervous persons and nervo-sanguine. As much depends upon the nature of the home to be avoided as the climate to be sought. I frequently send a patient away from home in winter in order to *avoid* the particular winter climate of his home. In general, I can say that I have seen few successes that I should ascribe to the climate."

LOWER MISSISSIPPI VALLEY.

Dr. Heber Jones, Memphis, Tenn.: "Favor a soothing climate for certain cases. Of sthenic climates, the less elevated stations. Florida and Texas in winter, and cooler climates (suitable) in summer. Broadly speaking, I am satisfied that the disease is often arrested in the incipient stage, and, if the change is made later, life is prolonged."

Dr. P. O. Hooper, Little Rock, Ark.: "Prefer mountain, rather upland, not necessarily very elevated. Certain parts of Texas preferable; at or near Austin, Texas (west). General results of experience very favorable."

Dr. Stanford E. Chaillé, New Orleans: "Favor stimulating, tonic, so-called sthenic climates. Direct patients to neighborhood of Asheville, Buncombe County, North Carolina. Results of experience: Much more favorable to mountain climates than to any other remedies."

Dr. Samuel M. Bemiss, New Orleans: "Prefer a stimulating, tonic climate. Direct patients to northern Georgia, southern California, western and northwestern Texas, North Carolina, gulf coast of Mississippi, and Mexico (Oaxa). General results: Average favorable to prolongation; cures more frequent."

In order to make this report as complete as possible, the opinions of certain gentlemen will be given who practice in the center of such regions as we know to be of benefit to the various forms of phthisis, the chief object being to have them set forth the advantages of *elevation, dryness, and equability*, respectively.

I. MARINE CLIMATE.

Equability of temperature. No dryness. No elevation.

FLORIDA.

Dr. Frederick D. Lente, Palatka: "Experience teaches me to prefer a *warm and moderately dry* climate. The ideal climate should neither be too dry nor too equable, very dry climates being subject to great diurnal range of temperature. The indications are that the profession are arriving at the conclusion that the climate which will offer the greatest inducement to invalids to be out in the open air, or which will enable them to *breathe in constantly and without danger of chilling the surface*, or, in other words, that which furnishes the greatest *amount* of pure air, is the one to be preferred. . . . I do not believe elevation to be a necessary

factor, nor do I attribute any influence to the reduced pressure of the air-column at high altitudes. With regard to *elevated regions*, it is worthy of note that, in almost all if not all of them, diseases of the respiratory organs are very prevalent.

The benefits of warm climates consist in this, that outdoor exercise can be indulged in with less chance of in any way lowering the vitality. *This is the gist of the whole matter of climate.* A moderately warm and moist climate like that of Florida is best, because nearly all invalids shrink from moderate degrees of cold, and, even if they have sufficient vitality, have not enough energy to brave any considerable degree of cold, day or night.

The mean winter temperature (six months) in Florida is about 63° Fahr., and during five sixths of the days the sun shines brightly. The climate of Florida ought not to be classed with that of Nassau or Madeira. It is peculiar, and a person, to appreciate its peculiarities fully, must spend a winter, and, if it be an exceptional winter, more than one. The dampness and malaria, for instance, have been much exaggerated. One peculiarity, which I think renders it superior to tropical climates, and prevents their curative effects, are the frequent changes of temperature, the range being insufficient to affect the most delicate invalid unfavorably, but enough to obviate debility and the debilitating effects of an invariable temperature, to which some places approach (as the Isle of Pines), but do not attain. . . . Of course, there are here, as in other States, healthy and unhealthy areas, and areas where the *summer* heat is found to be intolerable. It behooves those wishing to make Florida a *permanent* residence to look well to this circumstance. But tourists and the great majority of invalids are only concerned with the *winter* climate of Florida.

The tables of *relative humidity* give no correct idea of climatic humidity. . . . Palatka is undoubtedly a drier climate than the stations on the river farther north; fogs less frequent and less persistent. . . . Those who seek anxiously for *dry* climates overlook the fact that a *certain degree* of moisture in the air is absolutely necessary to prevent a great diurnal range of temperature, which these persons equally deprecate. In Florida, for instance, were it not for a certain amount of moisture in the air, and a certain amount of deposit of dew, would have a fall of 30° or 40°, instead of 13° or 14°.

The hilly country of middle and southern Georgia do well for some invalids—those that can stand a considerable degree of cold, and go out of doors at all times.

With regard to the proper time for going to Florida, one may go from the first to the middle of November, if his condition requires so early a retreat from inclement weather.

There are many cases, especially the advanced cases, which do better by remaining here summer and winter, and get worse, even in summer, if they go north."

(To be concluded.)

THE MEDICAL PROFESSION AND PUBLIC INSTRUCTION IN ITALY.—It is worthy of note that the Superior Council of Public Instruction includes among its members no fewer than four medical men; Bizzozero, Cantani, Alfonso Corradi, and Ercolani.

A CASE OF PRESENTATION OF THE HEAD, HAND, FOOT, AND CORD.*

By HENRY J. GARRIGUES, A. M., M. D.,

OBSTETRIC SURGEON TO MATERNITY HOSPITAL, NEW YORK.

MRS. ELIZA H., septipara, about thirty-five years old, was delivered, on the 26th of February last, in the Maternity Hospital. In her first labor, twelve years ago, she had sustained a laceration of the perinæum extending through the external sphincter ani muscle into the rectum, which had been left without treatment, and yet remains.

She had been for some time in the waiting ward, but had concealed that she was in labor, which the women sometimes do, hoping thereby to avoid the transfer to the delivery-room and the lying-in wards. When finally another patient called attention to her sufferings, it was found that a long loop of cord protruded from the vulva. Further examination revealed that the head was at the brim in the left occipito-posterior position, and that the right hand and the right foot, with part of the leg, had come down beside and in front of it, and were surrounded by loops of the still pulsating cord. Meconium was pouring out of the os, which was about three fourths dilated and dilatable. All the liquor amnii had escaped, and the patient suffered severe pain. She was seven months advanced in pregnancy.

The patient was placed in the knee-elbow position, and a vain attempt was made at reposition by one of the staff before my arrival. Then she was turned on her back and put under the influence of chloroform. The vagina and external genitals having been thoroughly disinfected with five-percent. carbolized water, the presenting foot was with difficulty separated from the surrounding coils, drawn a little down, and caught in a fillet round the ankle. During these manipulations the pulsation in the cord stopped. I tried in vain to dislodge the head by moderate traction on the fillet and direct pressure on the head from the vagina and from the abdomen. I therefore introduced the left hand into the womb, easily got hold of the other foot, drew it down into the vagina, and put a fillet on it. By traction on this, combined with pressure on the head, the latter was dislodged without any difficulty.

The body was easily extracted to the shoulder-blades. The loosening of the anterior (or right) arm gave some little trouble. After that had been brought down, the posterior (or left) arm was brought down with great ease. The extraction of the head met with a slight arrest, caused by the incomplete dilatation of the neck. Not succeeding in extracting it by the Prague method (the finger of one hand spread over the shoulders, the other grasping the feet and drawing them up over the mother's abdomen), I resorted to Levret's method (a finger in the mouth, those of the other hand on the shoulders). Upon the whole, the operation was an easy one, and would probably have resulted in the birth of a living child if the case had come under treatment in time. The child weighed seven pounds. The mother is doing well.

The presentation of head and foot is rather rare, and

* Read before the New York Obstetrical Society, March 6, 1888.

occurs mostly with premature children, as in our case, or with dead and limp children, or after unsuccessful attempts at delivery by version. Dr. Henry G. Landis, of Columbus, Ohio, wrote an interesting article on the subject in the "American Journal of Obstetrics" last year (vol. xv, p. 127 *et seq.*), reporting three cases from his own practice, all involving the death of the child, and one in that of Dr. Loving, of Columbus, the latter differing from most of the reported cases in the birth of a living child.

In the same volume (p. 434) is found a paper on the subject, by Dr. H. H. Atwater, of Vermont, who reports another case, in which he delivered the woman of a still-born child with the forceps.

The treatment of these cases presents some interest. If we see them before the waters have broken, it would be advisable to place the patient on the side in which the head is. This will make the fundus sink down on this side, and facilitate the entrance of the head into the brim and the retraction of the extremity. If this plan alone does not overcome the difficulty, we may try very cautiously to push up the leg without rupturing the membranes.

When the waters break, an attempt should immediately be made to replace the presenting extremity or extremities; but if many parts are presenting, as in the case reported above, the attempt will probably be a vain one; and if the cord is among the protruding parts, it is better not to lose any time in these vain efforts. If this is so when the vertex presents, it is, of course, still more so if the brow or the face presents. Under these circumstances turning is indicated, but there is one point I would call attention to. It is quite natural that one should first try to perform version by means of the presenting foot, but, if he does not succeed speedily, he had better try the other foot. In our case it was the right hand and foot which presented in front and to the right of the head. By drawing on the presenting leg we are liable to increase the difficulty. The foetus becomes more and more bent to one side as the leg is drawn down, and the head does not move. By bringing down the other leg and drawing on that we make the foetus rotate on its long axis, the extremities which are jammed together with the head in the pelvis are raised, the bent side becomes straightened out, and finally the head recedes from the pelvis. All this proved true in our case. It is only an adaptation of the rule laid down by Sir J. Y. Simpson for turning in shoulder presentations. He recommended hooking the finger behind the opposite knee. I took the foot because this part was more accessible. By acting on this principle, turning will often render all other measures unnecessary.

Dr. Landis says that to turn a dead child is to do a very useless thing, and to subject the mother to unnecessary inconvenience and risk, and he advises perforation and extraction. He does not say how, but I suppose he means with the forceps. I do not think this rule ought to be laid down without qualification. When, as in our case, the pelvis is not contracted, and the head is felt to be small, turning is a quick and easy operation, and I should think exposes the mother to less risk than perforation and forceps delivery. If, on the other hand, we have to deal with a large head or a small pelvis, I fully agree with Dr. Landis.

Dr. Atwater succeeded in delivering the woman by means of the forceps, the foot receding as he drew down the head, after he had in vain tried turning by traction on the prolapsed foot. This ought, of course, to be tried in case the child is living and turning can not be accomplished, but that will perhaps never be the case. When the child is dead, it is decidedly better for the mother to perforate the head before the forceps is applied. I would not like to turn after perforation, if it could be avoided, on account of the danger to the maternal parts arising from contact with sharp, denuded bones.*

A CASE OF STRYCHNINE POISONING IN A DOG.

By FRANK S. BILLINGS, V. S.,

BOSTON.

A VERY valuable pointer dog, belonging to a Mr. W., of Boston, was found in convulsions in the yard at about ten in the morning of Saturday, May 5th. The usual neighborly assistance was volunteered, but without effect. At about 4 P. M. I was called in. At that time the case looked unpromising, the animal being quite worn out, and the spasms being very frequent. The jaws were closed tetanically, so that they could scarcely be opened; the eyes were protruding; the respiration was very difficult; the extremities were cold; and the nose was dry. On the least touch, the patient went immediately into opisthotonic spasms, bending the body to the greatest possible degree, with legs stretched out and stiff. The eyes almost protruded from the sockets, and were fixed.

Diagnosticating strychnine poisoning, I gave an extremely unfavorable prognosis. The following prescription was ordered:

R Antimon. et potass. tartrat., 0.72 [gr. xij];
pulv. ipecac., 5.00 [gr. lxxv].
M. Div. in chart. No. ij.

S. One at once, and repeat in half an hour, if necessary.

The first powder not having any effect, the second was given, and a violent emesis followed. The emetic was not given with any hope of relieving the stomach of strychnine, but for the relaxing effects attributed to it, an end which was successfully attained. I think it a mistake and a waste of time to apply the stomach-pump in cases where so much time has elapsed, especially in those of strychnine poisoning, where every interference promotes spasms, and tends to the exhaustion of the patient.

The next step was to introduce atropine subcutaneously. One gramme of a solution of 0.12 to 30.00 of water was used, three injections being given in the course of an hour. Aside from this, I ordered a mustard poultice applied along the spine for half an hour, and then to be washed off as gently as possible, after which the patient was inclosed in blankets heated as warm as possible before the fire. After

* In the report of the discussion following this paper, Dr. Gillette's remarks at the time are inserted, but by an oversight my reply was left out, as well as the admission by Dr. Gillette that he was not present when the first half of the paper was read, and that he supposed it referred to a case of shoulder presentation.

the emesis was thoroughly over, two U. S. compound cathartic pills were given, which acted during the night.

I visited the patient again at 8 A. M. on Sunday morning. All appearance of spasms had disappeared, and the dog was quite intelligent, but still very weak. Ordered beef tea and light diet, and left him as cured. Up to 8 P. M. I heard nothing to the contrary.

Book Notices.

Fistula, Hemorrhoids, Painful Ulcer, Stricture, Prolapsus, and other Diseases of the Rectum: their Diagnosis and Treatment.

By WILLIAM ALLINGHAM, M. D., F. R. C. S. E., etc. Fourth revised and enlarged edition, with illustrations. Philadelphia: P. Blakiston, Son & Co., 1882. Pp. 168. [Price, cloth, \$1.25; paper, 75c.]

It is customary to review "Allingham on the Rectum" by saying that the work is so favorably known that it needs no review. It is indeed favorably known, the author himself calling attention in the preface to this edition to the fact that three former large ones have been exhausted, and that it has been translated into the French, Italian, Spanish, and Russian languages. This in itself is a guarantee of the merits of a very well-known and deservedly popular work. In the present edition "an endeavor has been made to remove obscurities, correct errors, and revise generally," so that the work should be better than ever before. An index has also been added, "which, it is hoped, will facilitate reference."

Turning at once to this index, we come across the words "Pelvic fistula... 13," and, the subject being interesting, we turn to page 13, and find some remarks on rectal examination, but nothing about fistula. On page 17, however, we find the following: "By pelvic or rectal fistula I mean a fistula which, commencing probably by an abscess in the ischio-rectal fossa, passes underneath both the sphincter muscles and opens possibly high up in the bowel, indeed in the pelvis. This is the fistula which is dangerous to the patient, and will call forth all the knowledge and experience of the surgeon to bring to a successful issue. My friend, Dr. David Mollière, of Lyons, in his exceedingly exhaustive and able work on 'Diseases of the Rectum,' makes practically the same division, calling the first '*fistules sous-tégumentaires*,' and the second '*fistules sous-musculaires*.'" We turn back and make the correction in the index, and then, with a gratified sense of having found what we have been looking for, settle our minds to learn more about these fistulæ which are dangerous to the patient, and "will call forth all the knowledge and experience of the surgeon to bring to a successful issue." A patient reading of the whole question up to the chapter on hemorrhoids, page 43, and another careful search over the index, make us no wiser than before. There is much that is useful, much that is especially valuable as stamped by the authority of the writer, but the whole question of pelvic fistulæ seems to have been passed with the bare notice already quoted. Turning now to Mollière, "*Traité des maladies du rectum et de l'anus*" (not Mollière on "Diseases of the Rectum")—a work which we are inclined to believe might have been followed oftener with advantage—we find the divisions of fistula which are quoted, but we do not find that by "*fistules sous-musculaires*" he means pelvic fistulæ. In fact, the term is used for the sole purpose of distinguishing an ordinary fistula, running under the sphincters, from a rather unusual variety

(*sous-tégumentaire*), which in no way implicates anything but the integument and subcutaneous tissue.

To continue this subject a little further. The author says (pp. 16, 17): "Now, these terms, 'complete,' 'blind external,' and 'blind internal,' are useful, but surgically they are of little moment; there is a very much more important division, which affects the character of the fistula as regards its seriousness to the patient, and also to the surgeon: I mean the division into anal fistula and pelvic or rectal fistula." This is new, original, and—not good. With all due deference, a rectal fistula and a pelvic fistula are not synonymous terms, nor is a pelvic fistula properly defined as one "which, commencing probably by an abscess in the ischio-rectal fossa, passes underneath both the sphincter muscles and opens possibly high up in the bowel, indeed in the pelvis"; nor does the author quite do his friend Mollière justice when he seems to make him say so. The latter very plainly (p. 22) divides the deep abscesses of this region into

"1. Those which develop above the levator-ani muscle, or abscesses of the superior pelvi-rectal space."

"2. Those which are situated less deeply, and which do not pass the limits of the ischio-rectal fossa." The fistula resulting from the former is, we believe, usually considered a pelvic fistula, while that from the latter is a rectal fistula, the *fistule sous-musculaire* of Mollière.

We leave this little question of pathology at this point and pass on to other things, only regretting that no one of the 1,208 cases of fistula, or 45 of abscess mentioned in the celebrated table of 4,000 cases, should have led the author into a few remarks which might guide the course of the general practitioner in dealing with one of those cases which "will call forth all the knowledge and experience of the surgeon to bring to a successful issue."

In the chapter on hemorrhoids there is little to criticise. The author does not believe in the treatment by injections of carbolic acid or of anything else, but his objections read rather curiously. "It appears to me," he says, "that all attempts to destroy vascular growths by causing coagulation of blood or inflammation in them, while they are not shut off from the general circulation, must be fraught with danger. You can have no guarantee that the coagulum may not break down, and minute particles of dead tissue find their way into the vascular or lymphatic systems, and result in embolism, or pyæmia, or both." This strikes us as pre-eminently true, but we wonder at the same time whether the injection of one drop of water, one of glycerin, and one of carbolic acid (the formula he mentions), is any more likely to cause embolism, or pyæmia, or both, than the application of half a dozen ligatures and the excision of the tumors. How, we wonder, would the author deal with a nævus of the scalp in a young child? Would he attempt to cause the coagulation of blood or inflammation in it in spite of the danger which might attend its not being cut off from the general circulation; or would he be deterred by the fear of embolism, or pyæmia, or both? Or is the coagulum formed on the proximal side of a ligature, which has been thrown around the base of a vascular tumor, any more shut off from the general circulation than one which is caused by the injection of an irritating fluid into the tumor? Whatever the answer may be, American quacks will go on curing their patients by injections, and the treatment will be accepted or rejected by the general practitioner according to its results, and not according to any preconceived theoretical objections.

There is one thing that has always struck us with surprise in reading Allingham's report of his own operation, and that is how much better results he gets from it than other men do. Of course, this is but natural, and the remark has absolutely no

hidden meaning, and contains no innuendo. But it is a well-known fact that, in America at least, Allingham's operation is not the harmless, simple thing his own figures show. He has operated 1,600 times without a single fatal result. No such percentage obtains here. But, excluding a fatal result, the operation is attended by pain, hæmorrhage, sometimes by grave symptoms of constitutional disturbance, and not unfrequently by subsequent contraction of the bowel to a point which demands treatment by dilatation. The young practitioner is apt to imagine that this particular operation is considerably more trifling as far as unpleasant consequences go than opening a boil, and invariably assures his patient, on the authority of the author, that there will be no danger, and only trifling pain. The older surgeon does not undertake it without considerable doubt in his own mind as to the amount of trouble he and his patient are to have before the wounds are healed.

Under the head of *Procidencia Recti* (p. 88) we find the following: "I have had, in my own practice, many cases of procidencia in which there was a hernial sac in the protrusion, and in all it was situated anteriorly, as, from the anatomy of the part, of course, it must be." On this subject also we can not but wish the author had been more explicit, for the subject of rectal hernia is an important one, the cases are rare, and any one who has seen many of them owes more to the profession than we get from this book. However, we will only ask why, from the anatomy of the parts, the hernia must, of course, be in the *anterior* portion of the prolapse, when some very reliable observers have reported cases in which, in spite of the anatomy, it was in the *posterior*?

On page 96, fourth prescription, there is a printer's error which would trouble an American practitioner who wished to use the formula. The word "(Wright's)" applies to the liq. carbonis detergens, an English secret preparation of coal-tar, and not to the glycerin, as written.

We have said enough to indicate what we believe to be the just and fair criticism of this well-known book. It is one which derives its great value from the authority of the writer more than from the amount of work he has expended upon the book itself. What he says must have weight because he says it, but how much more he might have said! how much more might have been culled by other hands from the same bountiful supply of opportunity! As it is, we have the same Allingham (in the fourth edition much the same as in the others)—practical, safe, full of valuable experience and suggestions, but unsatisfactory in its incompleteness, and in the noticeable omission of almost all that is not a record of the simplest every-day practice of one who has devoted himself to the treatment of these cases. The late Dr. Van Buren had not, perhaps, as large an experience as Allingham, but his book on the same subject shows far more thought, scholarship, and work, and is, for this reason, a better one.

The International Encyclopædia of Surgery. A Systematic Treatise on the Theory and Practice of Surgery. By authors of various nations. Edited by JOHN ABBOTT, Jr., M. D., Professor of Clinical Surgery in the University of Pennsylvania. Illustrated by chromo-lithographs and woodcuts. In six volumes. Vol. II. New York: William Wood & Co., 1882. Pp. xl-754.

In the second volume of this important work the following subjects are treated by the following authors: Contusions, by Dr. Hunter McGuire; Wounds, by Mr. Bryant; The Antiseptic Method of Treating Wounds, by Mr. Cheyne; Poisoned Wounds, by Dr. Packard; Saber and Bayonet Wounds, Arrow Wounds, by Dr. J. H. Bill; Gunshot Wounds, by Dr. P. S. Conner; The Effects of Heat, by Dr. T. G. Morton; The Effects of Cold, by

Dr. J. A. Grant; Abscesses, by Mr. Howard Marsh; Ulcers, by the late Dr. Hodgen; Gangrene and Gangrenous Diseases, by Dr. E. M. Moore; Gonorrhœa, by Dr. J. W. White; The Simple Venereal Ulcer or Chancroid, by Dr. F. R. Sturgis; Syphilis, by Dr. Van Harlingen; Bubon d'Emblée, Venereal Warts or Vegetations, Pseudo-Venereal Affections, Venereal Diseases in the Lower Animals, by Dr. H. R. Wharton; Surgical Diseases of the Skin and its Appendages, by Dr. J. C. White; Diseases of the Cellular Tissue, by Dr. J. W. Howe; and Injuries and Diseases of the Bursæ, by Dr. C. B. Nancrede. It will be noticed that of the eighteen writers all but three—Bryant, Cheyne, and Marsh—are Americans.

The chapter on contusions is short, but practical and valuable, especially the part which relates to the treatment of extravasations of blood, the puncturing of ecchymoses, etc. The chapter on wounds covers most of the important points connected with them, such as their classification, the process of repair, and their treatment. Special attention is given to treatment by water-dressings both with and without antiseptics in solution, and to the open method of treatment. The question of antiseptic treatment proper is considered by Mr. Cheyne in the third chapter, who goes over both the practical details of the treatment and the theory upon which it is based. The article on poisoned wounds contains much more information on the subject than is often to be found in any one place. It deals with dissecting wounds first, and with analogous diseases, such as animal typhus and wool-sorter's disease, and after this with the bites of the various poisonous insects and the snakes, dealing with each in a few words, but giving much valuable information.

The next hundred pages are devoted to saber and bayonet wounds, arrow and gunshot wounds. The two former varieties are disposed of in few words, the one being simply an incised wound, and the other very rare, for the reason that the bayonet is seldom in actual use by the soldier. The chapter on arrow wounds is very complete and full of interest, the material for it being drawn from the frequent difficulties which our Government has with the Indians. The gunshot wounds are first considered in a general way, and then the wounds of each particular part of the body are individually described with the proper means of treatment, the chapter as a whole being a very complete *résumé* of what is known and generally accepted as to this branch of military surgery. The chapter on the effects of heat includes burns and scalds, sunburns, burns from caustics, and lightning strokes, with the treatment of each and of the resulting deformity. The effects of cold are arranged under the two heads of chilblain or pernio, and frost-bite, the latter including the severe cases where large portions of the body are frozen. The question of abscesses is considered by Mr. Marsh as far as possible independently of the question of inflammation, which purely artificial division of the subject has rendered his task a difficult one. He considers, however, at first, the characters and properties of pus, and then the practical points in connection with abscesses, their divisions, symptoms, complications, and treatment, the chapter being rather practical than pathological. After this come the chapters on ulcers and on gangrene, the latter by Dr. Moore, of Rochester, being one of the best in the book, and including carbuncle, noma, and boil.

The following chapters, covering nearly three hundred pages, are devoted to venereal diseases. Gonorrhœa, with all its complications, in the male and female, is first thoroughly considered by Dr. White, then the chancroid by Dr. Sturgis, and finally syphilis by Dr. Van Harlingen, the whole making a complete work on this subject. Finally, we have chapters on the skin, the cellular tissue, and the bursæ, the latter ending the present volume.

As a whole, the work fulfills the promise given by the volume which preceded it, and is one of practical value, apparently designed as a book of reference for the practitioner. This purpose it answers admirably, for the most valuable part of the book is the practical part—the hints as to diagnosis and the suggestions as to treatment. The reader is at once led to a comparison of its merits with the similar work by Holmes, and the comparison is not to the detriment of the one under consideration.

Nerve-Vibration and Excitation as Agents in the Treatment of Functional Disorder and Organic Disease. By J. MORTIMER GRANVILLE, M. D. London: J. & A. Churchill, 1883. Pp. 128.

THE theory that general and special sensibility are the results of vibrations of the ultimate particles of the nerves, and that nerve-force of all kinds has a like origin, are theories that were first propounded by Sir Isaac Newton, and subsequently greatly elaborated by David Hartley. As the latter says: *

"These vibrations are motions backward and forward of the small particles; of the same kind with the oscillations of pendulums and the tremblings of the particles of sounding bodies. They must be conceived to be exceedingly short and small, so as not to have the least efficacy to disturb or move the whole bodies of the nerves or brain. For that the nerves themselves should vibrate like musical strings is highly absurd; nor was it ever asserted by Sir Isaac Newton, or any of those who have embraced his notion of the performance of sensation and motion by means of vibrations."

We do not, however, find anywhere in Dr. Granville's book any acknowledgment of his indebtedness to Hartley; on the contrary, we are led to the idea that the whole theory of the physiological and therapeutical actions of vibrations is one which, till Dr. Granville's views were published, had not entered into the mind of man. To be sure, we are treated to an elaborate refutation of the claims of M. Boudet, of Paris, who seems, somehow, to have made the first publication of the value of vibration as a therapeutical measure, although Dr. Granville had before him made use of the principle in his practice. But surely Dr. Granville should have said something about Hartley before demolishing M. Boudet. Thus, he says:

"I do not affirm that nervous force is the product of nerve-vibration, but science certainly justifies the belief that nerve-action or activity consists in, or is accompanied by, vibrations of the essential elements of nervous tissue in the body or frame—so to say—formed by the complementary parts of its structure.

"Cells vibrate as bodies in the intercellular stroma of the gray matter, and fibers vibrate as delicately poised rods or strong cords within the partite cylinders formed by internal prolongations of the neurilemma or nerve-sheath."

This is Hartley's doctrine, pure and simple.

The application of the theory to therapeutics is fairly Dr. Granville's idea. If certain diseases of the nervous system are the result of a series of morbid vibrations, it is reasonable to suppose that they may be cured by setting up a new series of vibrations not morbid; and this is done by percussion, more or less frequently repeated, as the circumstances seem to require. For effecting the object in view, *percutors* are employed. These are instruments worked by clock-work, or by electricity, by means of which blows are given, with suitable hammers, over the parts which it is thought necessary to subject to treatment. If, for instance, the case be one of neuralgia, percussion is made over the seat of the pain as nearly as possible to the nerve—rapidly if the pain be dull and aching, slowly if it be

acute and lancinating. For the details, reference must be made to Dr. Granville's book. We may state, however, that in some cases in which we have used the principle in question it has appeared to do good, and that it is especially useful in that affection to which the term "spinal irritation" is applied. For this, it suffices to percuss the painful regions with two of the India-rubber rattles used for the amusement of infants, for about five minutes, night and morning.

Brain Rest. By J. LEONARD CORNING, M. D., formerly Clinical Assistant to the Manhattan Eye and Ear Hospital, etc. New York: G. P. Putnam's Sons, 1883. Pp. 103. [Price, \$1.]

WE fain would praise and welcome this *brochure*, for the author's zeal and good faith are clearly discernible in its pages; but, in spite of a leaning amiability, we are quite unable to see for it a valid *raison d'être*. If it be needful to insist, with wearisome reiteration, upon the acceptance of unquestioned physiological facts, and principles which are almost axiomatic in their self-evident truthfulness, then the work is a warrantable effort, but not otherwise.

"It is very necessary to have some conception of the normal before proceeding to investigate the nature of abnormal phenomena." Hence, the first chapter is devoted to an exposition of the physiology of sleep. With a slight change in the side-dishes, the same meat is served again under the new name of Blood and Brain-Force, for the refecation of the second chapter. Following we have consistently treated the Hygienics of Sleep, Definition of Insomnia, and Therapeutics.

The author deems it worth while to vindicate, and returns more than once to the attack, a proposition asserting the dependence of mental phenomena upon cerebral blood-supply. Is it possible to find any one—deserving of one's ammunition—who would deny this dependence?

To say that these 103 pages do not contain any serious error is, we fear, to condemn with faint commendation. Much that would be acceptable might be reclaimed from existing knowledge within the ground covered by the title of this little book. But Dr. Corning's lucubration will not receive the cordial reception of a profession much overwrought by a general *cacoethes scribendi* until, at least, it has been shorn of its sentiment and its platitudes, wound up as to the thread of its verbosity, and strengthened in the staple of its argument.

Lectures on Orthopædic Surgery and Diseases of the Joints. Delivered at Bellevue Hospital Medical College, during the winter session of 1874-'75. By LEWIS A. SAYRE, M. D., Professor of Orthopædic Surgery and Clinical Surgery, etc. Second edition, revised and greatly enlarged. With 324 Illustrations. New York: D. Appleton & Co., 1883. Pp. xx-569.

ALTHOUGH still entitled a book of lectures, the new edition of Dr. Sayre's work is so much more systematic in its arrangement than the first that it may fairly be called a text-book. But, with all the evidence it bears of careful revision, not only in regard to the rearrangement of its parts, but in other respects as well, it still retains the charm that marked it before—that it is essentially a reflection of the author's personal study and achievements, and in no sense a mere putting together of other men's work. It must be said, nevertheless, that Dr. Sayre is so frank and manly in the matter of according full credit to his contemporaries that the reader can not but feel that it is to him a pleasure, rather than a forced concession, to speak of them in terms of generous praise.

There is no radical change in the doctrines enunciated or

* "Observations on Man," etc., London, 1791, p. 4.

the practice inculcated, but a wider range is covered than in the first edition, and the maturer experience and judgment of the author are drawn upon. Heartily as the original work was welcomed, the present edition can scarcely fail to meet with still greater favor.

On the Pathology of Bronchitis, Catarrhal Pneumonia, Tubercle, and Allied Lesions of the Human Lung. By D. J. HAMILTON, M. B., F. R. C. S. E., F. R. S. E., Professor of Pathological Anatomy (Sir Erasmus Wilson Chair) University of Aberdeen. With illustrations. London: Macmillan & Co., 1883. Pp. xii-248. [Price, \$2.50.]

THIS work had its origin in a series of papers which appeared in the "Practitioner" for the years 1879 and 1880. Since then revisions and alterations have been made wherever modern research has called for them. The author has attempted to make clear the subject of tubercle and phthisis, and the relations of both these to bronchial affections. He inclines a little to the doctrine of Virchow and Niemeyer, that tubercle may be developed from the caseous degeneration of substances not originally tuberculous. He admits that tuberculosis is contagious, but believes that contagion is a very rare cause of phthisis in the human subject. The illustrations are well printed, and in many cases very striking. The author bases his conclusions upon careful research, and supports them with a confidence expressive of strong convictions.

Early Aid in Injuries and Accidents. By Dr. FRIEDRICH ESMARCH, Professor of Surgery at the University of Kiel, etc. Translated from the German by H. R. H. Princess Christian. Philadelphia: Henry C. Lea's Son & Co., 1883. Pp. viii-17 to 117, inclusive.

THE author says: "When I look back on my career as a surgeon, I can with truth say that many and many are the times I have deplored that so very few people know how to render the first aid to those who have suddenly met with some injury. . . . How many there are every year who die a miserable death, and who might have been saved by prompt aid, had any one been near who knew how to give it." For this reason a great surgeon has written this little book, full of the simplest things in anatomy and surgery—a book which would serve an excellent purpose as a text-book in every school and college in the land, and which contains a great deal which goes to make up the daily practice of the active practitioner. The public would probably be surprised if they knew how much of the daily practice of medicine and surgery is contained in these 117 pages.

A Compend of Obstetrics. Especially adapted to the use of Medical Students and Physicians. By HENRY G. LANDIS, A. M., M. D., Professor of Obstetrics and Diseases of Women in Starling Medical College, etc. With Illustrations. Philadelphia: P. Blakiston, Son & Co., 1883. Pp. 107. [Quiz Compend, No. 5.]

SOME months ago we had occasion to notice Dr. Landis's excellent monograph on the obstetric forceps, the originality and logical character of which led us to welcome him as a new and important contributor to obstetrical literature. We regret that we can not bestow the same praise on this little book of questions and answers. We can only say that it is a good one of its kind, but that the kind is exceedingly poor.

A Manual of Auscultation and Percussion; embracing the Physical Diagnosis of Diseases of the Lungs and Heart, and of Thoracic Aneurysm. By AUSTIN FLINT, M. D., Professor of the Principles and Practice of Medicine and of Clinical

Medicine in the Bellevue Hospital Medical College, etc. Third edition, revised. Philadelphia: Henry C. Lea's Son & Co., 1883. Pp. 242.

THIS little work is well known, and its popularity is attested by the rapidity with which the second edition has been exhausted. It is sufficient to say that the present edition has been revised wherever more recent investigations have cast new light upon the subject.

The Treatment of Acute Rheumatism: an Analysis of the Results obtained under Different Systems of Treatment in St. George's Hospital during the years 1877 and 1878. By ISAMBARD OWEN, M. D., Lecturer on Materia Medica and Therapeutics, and late Medical Registrar of St. George's Hospital. London: J. & A. Churchill, 1883. Pp. 28.

THE treatment of rheumatism has received such elaborate discussion and investigation at the hands of English physicians that a work with the foregoing title must be of interest to all practicing physicians. The cases are carefully analyzed and the results tabulated.

BOOKS AND PAMPHLETS RECEIVED.

A Treatise on Therapeutics, comprising Materia Medica and Toxicology, with Especial Reference to the Application of the Physiological Action of Drugs to Clinical Medicine. By H. C. Wood, M. D., Professor of Materia Medica and Therapeutics, and Clinical Professor of Diseases of the Nervous System, in the University of Pennsylvania, etc. Fifth edition, revised and enlarged. Philadelphia: J. B. Lippincott & Co., 1883. Pp. xiii-17 to 740, inclusive. [Price, \$6.]

A Practical Treatise on Impotence, Sterility, and Allied Disorders of the Male Sexual Organs. By Samuel W. Gross, A. M., M. D., Professor of the Principles of Surgery and Clinical Surgery in the Jefferson Medical College of Philadelphia, etc. Second edition, thoroughly revised. With sixteen illustrations. Philadelphia: Henry C. Lea's Son & Co., 1883. Pp. viii-17 to 176, inclusive.

Facts regarding the Medical Profession and Sanitary Science, etc. By Carl H. Horsch. Dover, N. H., 1883. Pp. 18.

How Can We Obtain and Preserve the Best Eyesight and Hearing? By Leartus Connor, A. M., M. D., Detroit. [Reprint from the "Annual Report of the Michigan State Board of Health."]

A Clinical Study of Syphilis of the Eye and its Appendages. By Leartus Connor, A. M., M. D., Detroit. [Reprint from the "American Journal of the Medical Sciences."]

Algas Termales. Descripción Micrográfica de Algunas Especies Presentadas en la Exposición de Minería, Aguas Minerales, etc. Por Eduardo Moreno, Medico-Director, por Oposición, de Aguas Minerales. Madrid, 1883. Pp. 44.

Handbook of Medical Electricity. By A. M. Rosebrugh, M. D., Surgeon to the Toronto Eye and Ear Dispensary, etc. Toronto, 1883. Pp. 54.

MEDICAL MEN AS WITNESSES.—The "British Medical Journal" reminds its readers that one of the Scottish judges some months ago expressed an opinion regarding medical evidence in the witness-box which was far from flattering to the profession, or possibly far from just to it. The journal in question adds, however, that a pleasant sort of reparation has recently been made by the same judge, Lord Deas (one of the most venerable on the Scottish Bench), in a murder case recently tried before him in Glasgow. He complimented one of the medical witnesses (Dr. James Wallace, of Greenock) on the cautious and intelligent evidence given by him in this case, in which the trial was of two men for murdering two gamekeepers, and in which conviction was secured and sentence of death passed on both.

THE
NEW YORK MEDICAL JOURNAL,
A Weekly Review of Medicine.

Published by
D. APPLETON & Co.

Edited by
FRANK P. FOSTER, M. D.

NEW YORK, SATURDAY, JUNE 16, 1883.

THE RECENT MEETING OF THE AMERICAN MEDICAL
ASSOCIATION.

WE lately remarked that the meeting at Cleveland would probably be a large one, and so it turned out to be. It is said, indeed, to have been the largest ever held, with the single exception of the New York meeting three years ago. The attractiveness of the city in which the meeting was held doubtless accounts in great measure for the large attendance. The chance that an ethical discussion would arise may have counted for something among the younger men, but those who were familiar with the methods of the association must have been aware that any positive action affecting the code, or even any real discussion of the subject in open session, could scarcely fail to be postponed to next year.

Still, there was a general feeling among a large number of the members of the profession in this State who had allowed their names to be used as discountenancing any alteration of the code by other organizations than the American Medical Association, although many of them thought a change advisable, that the representations made to them to induce them to allow of such use of their names warranted the expectation that the question of a revision of the code would be brought before the meeting by the leaders of the old-code party in New York. As we said on a former occasion, we believe they were perfectly justified in the expectation alluded to, and we can not see how a sense of having been cajoled can fail to be mingled with their disappointment.

It must have been somewhat of a surprise to those in attendance who favored a revision of the code to find that the only suggestion of such a course that came before the meeting was in the form of a communication from a society in St. Louis. To us, this is but another of the many facts pointing to the existence of a widespread feeling of dissatisfaction with the code as it stands. Indeed, it seems as if the gentlemen who control the American Medical Association must have had a very decided inkling of the state of things; otherwise they would hardly have thought it necessary to gag the meeting by refusing seats to all who would not sign in advance a pledge to support the code as it is.

Some of the members demurred to this pledge, but signed it under protest. They could do nothing more; they had to sign or be turned away without redress. This is one of the beautiful results of consenting to be controlled by an organization that has no existence in the eyes of the law, and, therefore, has not the constitutional right to be sued. The simple fact is, that the American Medical Association can deal as it pleases with individuals, and, so long as it does not invade their rights

as citizens, it can not be called to account. The worst feature of all is, that not only can the general meeting do this, but the Judicial Council can do the same, as it did in this instance.

The length to which this violation of individual rights may be carried is strikingly shown in the case of Dr. Goodwillie, of this city, who, having signed the pledge under protest, as we understand, and been registered, was not allowed to read the address he had prepared as chairman of a section, and was at last virtually kicked out of the meeting, his registration being canceled, and his annual dues being returned to him. We are not told that Dr. Goodwillie had committed any overt act that met the disapproval of the meeting, or even that of the Judicial Council. The only inference we can draw from the affair is, that the association is determined that none of its members shall dare to think any of its doings unwise, or, at all events, shall not venture to give expression to such a thought.

We have no fault to find with the members of the Judicial Council as men. For most of them we have the greatest respect. We are quite willing to believe that they are guided by what they take to be considerations looking to the welfare of the profession; whether or not they are mistaken, time will show. The history of the world bristles with iniquities perpetrated *ad majorem dei gloriam*. Power should always be coupled with responsibility. "We take the responsibility," said Dr. Davis, speaking in behalf of the Judicial Council in the matter of the pledge extorted from every participant in the meeting; yet all who heard his voice must have known that the words were but empty sound. A man responsible to himself is not responsible at all; and the same is true of organizations. It may, indeed, be possible for the association at large to call the Judicial Council to account, but even that involves but a shifting of the semblance of responsibility, for who shall arraign the association itself? Is it to be wondered at that the Medical Society of the State of New York, having drawn its head out of the grasp of this oligarchy, declines to sue for that peace which is exemplified by the lion and the lamb lying down together—the lamb inside the lion? New York desires peace, but for the "peace at any price" policy she has no stomach.

THE QUESTION OF A STATE EXAMINING BOARD.

THERE is little if any diversity of feeling among the progressive and thinking portion of the profession, whether in this State or elsewhere through the country, on the broad question of the desirability of a change in our methods of granting licenses to practice. But how best to effect that change is a problem. If we had to take into account only our leading colleges, there would be no ground for the sentiment to which we refer, for every one in a position to judge of the matter knows that those institutions have constantly been raising their standards, especially within the last twenty years. It is a subject of general congratulation, and one in regard to which the colleges may well be proud, that, unaided and unrestricted by the State or by any corporate authority beyond their own, they have extended their courses, increased the amount of actual work required of students, and in every way made their diplomas

harder and harder to obtain. All this they have done, as we have before pointed out, in obedience to business principles, and we have not the slightest doubt that they will continue in the same course in the future if left to themselves. They are as far above the necessity of competing with the inferior colleges as a great banking house is above feeling the rivalry of a pawnbroker's shop.

Unfortunately, however, the profession at large and the community are not so independent. Any so-called college, no matter how absurd its pretensions may be as an institution of learning, may spew forth its "graduates" without let or hindrance, provided only it has succeeded in getting an act of incorporation, and it must be poor indeed in devices not to have been able to accomplish that much. He whom it invests with its degree, whether on account of a certain grade of proficiency in medical study, by reason of favoritism, or, to use no harsher term, as an expression of its good nature, is equal before the law with him who has toiled long and hard to achieve a status that is legally not a whit better. The two are on the same footing before the community at the start, and the community is slow to make subsequent distinctions in such matters. Not only is a material injury thus wrought to the painstaking members of the profession, and indirectly to the public, but the esteem in which medicine is held suffers likewise. People do not judge doctors as a class by the brightest of their number, but by the average qualities they seem to show. Let any one of the vast herd of scamps and incompetents that are decked with the degree of doctor in medicine incur reprobation, and discredit results to the profession as a whole.

It is not for the sake of the great colleges, therefore, that a change is desirable, although a commendable change could scarcely prove to their disadvantage, and might be of profit to them. It is the demand of the decent part of the profession that they shall not for ever be classed in the same category with pretenders; and to acquiescence in this demand, and even to its advocacy, must the general public come in the end, including, let us hope, the men who make laws. As we said at the outset, however, the precise form in which that demand can best be enforced is not easy to determine. On a subsequent occasion we shall mention some of the considerations which we think should have a bearing upon the settlement of the question.

INADEQUATE MEASURES AGAINST INFECTIOUS DISEASES.

THE "Cincinnati Lancet and Clinic," commenting upon the course pursued by the sanitary officials of Cincinnati in the matter of a music-school in which, as we lately informed our readers, one of the pupils had fallen a victim to small-pox, says: "The health officer quarantined the house after the damage had been done. This simply serves to frighten the nervous, and to cause the people to depend on the quarantine for protection against the disease. Our health officer ought to know that small pox can't be quarantined. That never has sufficed to check the spread of the disease, and it never will suffice. Vaccination is the only protection against small-pox. The sooner that lesson is taught the people and the profession, the sooner

will the scourge cease. All other methods of controlling it only divert the minds of the people from the right way."

Our contemporary's forcible expressions are abundantly justified, and such injunctions, coming from authoritative sources, are needed not only in Cincinnati, but in every community. Were it the people alone that required to be set right in the matter, the task would be comparatively easy. As it is, their mistaken notions are bolstered up every now and then by implications that this or that outbreak of small-pox is caused, or, intensified, or spread by filth. We would be the last to hamper sanitary boards in their endeavors to impress upon the public the necessity of cleanliness as a measure in the highest degree conducive to public health, but we can not admit that good is likely to result in the long run from official utterances that imply, even if they do not assert, such a connection between mere filth and the prevalence of the disease in question. It is legitimate, of course, to regard refuse of all sorts as including many possible vehicles of the contagium, but the deductions drawn by the community from such statements as we allude to do not stop at that; to a very great extent the public have imbibed the notion that filth is *per se* capable of generating the disease.

Another erroneous notion—one, too, that we fear boards of health are to a certain degree answerable for, from their tendency to underrate the magnitude of outbreaks of contagious disease, and to push a laudable purpose of encouraging those who look to them for advice to the length of intimating that timidity is uncalled for—is, that it is chiefly those who are overcome with fear that contract pestilential diseases. No doubt the depression of the system that results from morbid apprehension adds to the gravity of the attack in individual instances, but the absurdity of accounting dread as actually an exciting cause of the outbreak would be obvious to any one were he reminded of the simple fact that infants, to whom fear from such a cause is unknown, suffer to the full extent from small-pox and other like diseases.

THE OFFICERS OF THE AMERICAN MEDICAL ASSOCIATION.

THE association has usually been fortunate in its pre-idents, and this year has proved no exception to the rule. Though past eighty years of age, the outgoing president, Dr. Atlee, evidently took a great deal of pains to so shape his introductory address that it should indeed strike his hearers as the words of "an oldest brother," as he expressed it. The mere presence of such a man, whether in the chair or among the benches, is always a source of strength to a deliberative assembly, and we may well conceive that Dr. Atlee's occupancy of the chair was a matter of congratulation to the meeting.

In its newly elected president, also, the association has done itself an honor. Dr. Flint's position has been such for years that no distinction in the power of the profession to confer upon him could heighten it. It is to be hoped that the meeting over which he will be called to preside at Washington next year will be of such a character as to repay him for the pains he will undoubtedly take to make it worthy of the profession.

We should be glad to be able to speak in like terms of the officials of the association as a whole, but the utmost strain of optimism can scarcely look upon them as other than mediocre, with a few exceptions. The chairmen of the sections ought to be men of unquestioned eminence in the several branches to which the sections are devoted. With regard to most of them, however, such is not the case. It seems important, too, that those who are deputed to represent the association abroad should be men whose passports are to be found in the form of a world-wide repute. In point of fact, almost any member who was able to say at the recent meeting that he intended to go to Europe during the summer found no difficulty in getting himself appointed a delegate.

THE JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION.

The association is now fully committed to the experiment of publishing a weekly journal, and it is announced that the appearance of the first number may be looked for early in July. It is to be edited by Dr. N. S. Davis, of Chicago, and published in that city. Dr. Davis is not new to the work, and he knows, therefore, what an undertaking he has consented to assume. There is everything to indicate that he does it for the good of the enterprise, and not because it could in any way conduce to his personal advantage. We wish him all manner of success with the journal, and we look forward to its appearance with pleasant anticipations.

THE POWER OF HEALTH BOARDS TO ABATE NUISANCES.

The powers possessed by boards of health in cities to prevent the continuance of nuisances is a matter of public importance, and the courts have in general been careful to protect them in the exercise of their duties. In a case that lately came up in Buffalo, an injunction obtained by the owner of cattle against the Board of Health, which had directed their removal as a "sanitary necessity," was dissolved upon appeal, and the board's action was approved. The principle involved was somewhat as in a recent English case, where a property owner obtained an injunction against the use of neighboring premises for a small-pox hospital. In this case, as we have already informed our readers, the suit was dismissed on technical grounds, but the judge intimated very strongly that, had the papers been regular, the injunction would have been continued on the ground of danger to the public health.

THE BILL TO RESUSCITATE THE UNITED STATES MEDICAL COLLEGE.

GOVERNOR CLEVELAND has declined to sign the bill legalizing the organization and the acts of the United States Medical College, as well as the degrees conferred by it, to which frequent reference has been made in these columns, and it therefore fails of becoming a law. This action of the Governor was expected, as the bill would, had it become a law, have been a palpable interference with the decisions of the courts, and it was, moreover, so broad in its provisions as to cover doings of the college not now known, but which might hereafter be shown to be injurious to the public welfare. The question as to the validity of the organization of the college will now be thoroughly examined by the courts. The last phase of the litigation has been the appeal to the General Term of the Supreme Court, from the

decision of the trial court, which was adverse to the college. Argument was heard on the appeal a short time since, but a decision has not yet been rendered by the General Term.

MISTAKES IN FILLING PRESCRIPTIONS.

The newspapers contain frequent accounts of mistakes made by apothecaries in preparing medicines prescribed, some of which turn out to be very serious.

In a recent case tried in the Marine Court of this city a verdict of \$100 was rendered against an apothecary on Second Avenue for negligence of this kind. The plaintiff testified that a single dose of the medicine as prepared made her so ill as to confine her to her bed for a month. The defendant admitted a mistake in the preparation, but contended that the compound ought not to have produced the ill effects complained of. The jury regarded the mistake as a serious one, and gave a verdict for the woman.

Proceedings of Societies.

AMERICAN MEDICAL ASSOCIATION.

Wednesday, June 6th—Second Day.

(Concluded from page 642.)

THE COMMITTEE ON NOMINATIONS.*—The session having been opened with a prayer by the Rev. Charles S. Pomeroy, D. D., the secretary announced the names of the Nominating Committee as follows: Drs. W. O. Baldwin, Alabama; D. A. Linthicum, Arkansas; W. F. McNutt, California; T. M. Hills, Connecticut; H. K. Steele, Colorado; W. Marshall, Delaware; D. C. Patterson, District of Columbia; Eugene Foster, Georgia; C. F. Parker, Illinois; H. J. Wood, Indiana; W. S. Robertson, Iowa; L. S. McMurtry, Kentucky; W. L. Schenck, Kansas; J. W. Dupree, Louisiana; C. A. Savory, Massachusetts; Julian J. Chisolm, Maryland; B. H. Miller, Minnesota; F. K. Owen, Michigan; E. H. Gregory, Missouri; A. J. Fuller, Maine; V. H. Coffman, Nebraska; E. Grissom, North Carolina; B. A. Watson, New Jersey; H. D. Didama, New York; W. M. Beach, Ohio; S. D. Gross, Pennsylvania; A. Ballou, Rhode Island; R. A. Kinlock, South Carolina; D. J. Roberts, Tennessee; H. C. Ghent, Texas; Alexander Harris, Virginia; J. M. Lasell, West Virginia; S. C. Johnson, Wisconsin; T. W. Miller, United States Marine-Hospital Service; Joseph R. Smith, United States Army; A. L. Gibon, United States Navy; W. A. Tipton, New Mexico; A. B. Van Nelson, Dakota Territory.

A NEW BY-LAW.—Dr. FOSTER PRATT, of Michigan, moved to take from the table a proposition, made at St. Paul last year, to amend the by-laws of the association. The motion was carried. Dr. Pratt then moved the adoption of the following amendment:

"That section 13 of the by-laws be and it is hereby amended so as to read as follows: That none but members present shall be elected president, vice-presidents, secretary, or treasurer of the association, or chairmen or secretaries of sections." Carried.

The new by-law leaves to the Nominating Committee discretionary power with regard to the minor officers.

THE ARMY MEDICAL MUSEUM AND LIBRARY.—Dr. SAMUEL D. GROSS presented a paper, signed by himself, Austin Flint, Sr., and Oliver Wendell Holmes, praying Congress to make an appropriation for the National Public Museum and Medical Li-

* A partial list of the members of the committee was published in our report of the first day's proceedings.

brary, now located at Washington, in order to preserve the valuable collection from danger by fire. This communication was referred to the publication committee.

Dr. H. A. JOHNSON, of Washington, presented the following resolutions:

Whereas, There has been formed in Washington, under the direction of the medical department of the army, a museum of unrivaled completeness and excellence, illustrating military medicine and surgery, and a medical library which is believed to be the largest and most valuable in the world; and

Whereas, It is believed to be of the highest importance for the promotion of medical science, literature, and education in this country, that these collections should be preserved and made and kept as complete as possible; and

Whereas, It is believed that this can be best done by keeping them together under the management which has already produced such excellent results, and by its [publications has made them available for use throughout the country. Therefore,

Resolved, I. That the American Medical Association respectfully urges upon Congress the importance of at once providing a commodious fire-proof building to contain the Army Medical Museum and Library.

II. That the annual appropriation for this library should be sufficient to enable it to obtain all new medical publications of all countries as soon as they appear, and also to complete its collection of medical books heretofore published; and that for this purpose the sum of ten thousand dollars is considered a reasonable and proper annual appropriation, and Congress is requested to grant that sum in addition to the amount required for the Medical Museum.

III. That it is of the greatest importance that the "Index-Catalogue" of this library, now in the course of publication, should be issued as rapidly as it can be properly prepared for the press, and Congress is urged to make the necessary appropriations for this purpose.

IV. That a special committee of five be appointed, of which the president of the association shall be *ex-officio* chairman, to present this matter to Congress and to call the attention of State and local medical societies, and of all who are interested in the progress of medicine, to the importance of furnishing to members of Congress and Senators full information as to the value of this museum and library, and the esteem in which they are held by the medical profession of the United States. The resolutions were adopted.

THE PROPOSED JOURNAL OF THE ASSOCIATION.—At the conclusion of the reading of Dr. Johnson's resolutions the Report of the Board of Trustees was read by N. S. DAVIS, M. D., Chairman, on the subject of journalizing the transactions. Dr. Davis stated that each member of the board had signed the report after due consideration, and asked for its favorable consideration by the association.

The following is a synopsis of the Report of the Board of Trustees concerning the feasibility of publishing a weekly medical journal instead of an annual volume of transactions:

Resolved, That the interests of the association would be promoted by the publication of its transactions in a weekly medical journal under its own control, instead of in an annual volume, as heretofore, provided it could be done without involving pecuniary embarrassment, or so far engrossing its funds as to prevent the annual encouragement of original investigations by its members.

[The name recommended was, "The Journal of the American Medical Association."]

Resolved, That the Board of Trustees retain entire control of the medical journal.

Also *Resolved*, That the treasurer of the association pay the

necessary expenses of the Board of Trustees in printing, distributing of circulars, and correspondence.

In accordance with the foregoing resolutions, which were adopted at St. Paul in 1882, a board of trustees was appointed. After the adjournment of the association, a meeting of the board was held, and an organization was effected. The board agreed upon a plan of a journal, and issued 40,000 circulars and blank pledges of support of such journal, which were sent to the members of the profession throughout the country; 2,150 answers were returned, of which only twelve were direct expressions of opposition to the proposed change in the mode of publication. After a careful analysis and comparison of the returns containing pledges, the members of the board voted unanimously in favor of recommending the publication of the journal as previously proposed, being satisfied that it could be done without embarrassment to the association.

Having decided this question, the board proceeded to consider the general plan on which the work could be most efficiently conducted, and the most favorable place for its publication, which resulted in the adoption of the following propositions:

1. The editor to have direct supervision of the whole work, and for business purposes he should employ a clerk, also an assistant editor, or assistants specially qualified in all departments of medical science.

Also to establish a direct correspondence with the proper officers of the State societies.

All advertisements of proprietary or patent medicines to be excluded. Also any advertisement having the name of any member of the profession as indorser. In other words, no advertisements should be admitted which contravene in letter or spirit the principles of the national code of ethics.

It is thus seen that the Board of Trustees has endeavored to promptly and faithfully comply with the instructions given and execute the work enjoined upon it in the resolutions adopted by the association, at its annual meeting in St. Paul, June, 1882—

1. By agreeing upon a plan for the proposed journal of the American Medical Association.

2. By printing and distributing over forty thousand copies of said plan, accompanied by the necessary explanations, and blank pledges asking the return of the latter to the president of the board.

3. By ascertaining, as reliably as possible, the cost of publishing the journal on the plan agreed to do.

4. By assembling at the proper time and in open meeting, carefully canvassing the results, and arriving unanimously at the conclusion that the publication of the proposed journal on the general plan already stated could be undertaken, not only without serious danger of producing any financial embarrassment, but, on the contrary, with a fair prospect of greatly adding to the prosperity of the association by retaining in active connection with it all who may be added from year to year, and by keeping alive a very much more active and beneficial intercourse with the profession at large; and

5. By a cordial agreement upon the general plan of business management, the most favorable place for publishing, and upon the chief editor, to take charge of the work, provided the association should accept the recommendations and order it to proceed.

The expenses incurred by the board were \$709.

In conclusion, the following resolutions are submitted for your consideration and action thereon:

"*Resolved*, That the Report of the Board of Trustees just read be accepted, and the recommendations contained therein concerning the publication of a weekly periodical, to be called

the 'Journal of the American Medical Association,' be and the same are hereby adopted.

"*Resolved*, That the Board of Trustees are hereby instructed to proceed with the publication of the 'Journal of the American Medical Association' at as early a day as is practicable, to take the place of the annual volume of 'Transactions,' and that the duties formerly devolved upon the standing Committee on Publication be transferred to the Board of Trustees, and that the secretary of the association, during or immediately after each annual session, be required to transfer to the editor of the Journal the record of proceedings, and all addresses, with reports of committees and officers, papers and contributions that may be referred for publication, either in general sessions or in any of the sections.

"*Resolved*, That the treasurer of the association be and is hereby directed to make such arrangements with the Board of Trustees in regard to the collection of subscriptions and the disbursement of moneys, as may be necessary for facilitating the business of publishing a weekly medical journal. But all orders on the treasury for disbursements of money in any way connected with the publication must be indorsed by the president of the Board of Trustees."

Dr. WILLIAM BRODIE, of Michigan, moved the adoption of the resolutions.

Dr. W. C. WILE, of Connecticut, in view of the importance of the subject, moved as an amendment that the secretary be instructed to have the report printed, and that its discussion be postponed until to-morrow morning at ten o'clock. The amendment was lost. The resolutions were then adopted.

Dr. L. S. McMURTRY, secretary of the Board of Trustees, announced that the board had unanimously selected Dr. N. S. Davis as editor in chief of the journal. Dr. Davis expressed his thanks for the honor, and promised to use his best efforts for the success of the journal. He tendered his resignation as a member of the Board of Trustees.

Dr. A. B. PALMER, of Michigan, expressed his pleasure with the report, and spoke briefly in praise of Dr. Davis. Dr. Davis announced that he had engaged Dr. William Lee, of Washington, to take charge of the department of medicine in the journal, and that other assistants would be secured as soon as possible.

Dr. J. SOLIS COHEN, of Pennsylvania, moved that the Board of Trustees for the publication of the transactions of the American Medical Association be instructed, in addition to the journal, to print annually a thin octavo volume containing the minutes of the association. The motion was seconded by Dr. Quinby of New Jersey. Drs. Hibbard, of Indiana, and Byrd, of Illinois, hoped it would not prevail. Dr. Richardson moved to refer the question to the Board of Trustees. Carried.

On motion of Dr. Bush, of Delaware, a vote of thanks was tendered to Dr. Davis for the faithful discharge of his duties.

THE NEW BOARD OF TRUSTEES.—Dr. Davis having made a formal acceptance of the editorship of the journal, and resigned his position as a member of the board, there remained four vacancies in the board. Upon motion of Dr. Richardson, of Louisiana, the chair was authorized to appoint a nominating committee to fill said vacancies. The chair appointed as such committee Drs. Richardson, of Louisiana; Brodie, of Michigan; Hibbard, of Indiana; Baldwin, of Alabama; and Scott, of Ohio.

The committee reported the names of Drs. G. O. Hooker, of Arkansas; Alonzo Garcelon, of Maine; L. S. McMurry, of Kentucky (re-elected); and Dr. J. H. Hollister, of Illinois, to fill Dr. Davis's place.

THE ROCKY MOUNTAIN MEDICAL ASSOCIATION.—The secretary announced that this association would meet at the Weddell House in the evening. He stated that the association consisted of a party of physicians who, some eleven years ago, accompanied by

their wives and sweethearts, crossed the mountains to attend the meetings of the American Medical Association at San Francisco.

THE ADDRESS IN MEDICINE.—Dr. J. H. HOLLISTER, chairman of the Section in Practical Medicine, was then introduced, and read an address on the Development of Medical Science since the last meeting. He said: "Men have been compelled to grapple with some of the most intricate and difficult problems that can challenge investigation. In studying those higher relations which lie in part beyond the limits of finite conception, reason may properly defer to faith, and, seeking the guiding hand of revelation, walk with a wisdom other than its own. But in medicine it is not so. Forces, mental and material, and interchangeable, manifest themselves in ways so manifold, and with so many essential facts undiscovered, that reason is compelled to thread her way with steps slow and uncertain, sometimes in truth, oftentimes in error, ever painfully conscious of her weakness, and of the mysteries that confront her on every side.

"Thus only may we account for the seemingly meager fruitage which represents for more than two thousand years the labors of some of the ablest minds the world has ever seen."

He further said that the essential causes of disease had in the main been so obscure, and their expressions so varied and complex, that the best of men had been compelled to conclusions largely inferential, and medicine had ever been the fruitful field, in the absence of positive knowledge, for exuberant development. Speculations had been piled mountain high by one generation of workers, to disappear before another as chaff. But, despite the winnowings, there still remained some golden grains of truth, and the treasure-house had been slowly but surely enriched by the garnering of ages.

He then went on to show some few things that had been done by the present army of brilliant workers. He spoke of the value of the microscope in determining the truth of the germ theory of disease. It opened up new fields every day. He gave the limit of measurement now attained as the $\frac{1}{140000}$ part of an inch, arguing that it was idle to speculate as to when or where the limits of human vision would finally fall. In microscopy, two subjects more than any other command attention at this time. The first one was the composition of the blood; the second, the agency of microzymes in the production of diseases. He mentioned the difficulty of deciding which possessed the most vitality—the bacteria or the blood corpuscles—and the danger in pursuing the germicidal treatment—of killing the subject while the bacteria remained unharmed, like the surgeon who saved the tumor but killed the man.

He recommended that in the course of time a national board of medical examiners be appointed, who alone should grant permission to practice medicine, suggesting that this would stop the yearly grist of the diploma mills. He said he was happy to announce that a law had just come into force in Italy which prohibited the sale of patent medicines unless their precise composition was stated. This statement was received with loud applause. The speaker also recommended the establishment of a medical bureau.

THE ADDRESS IN OBSTETRICS.—Dr. J. K. BARTLETT, of Wisconsin, chairman of the Section in Obstetrics, was unable to present his address personally, on account of throat difficulty, and asked that Dr. Nicholas Senn be allowed to read it. The address recounted the many advances made in obstetrical operations. As a process of destroying the fetus, it mentioned the occasional use of electricity in cases of extra-uterine pregnancy—an anomaly which could only result in the death of the mother unless an operation was performed. He also related cases where blood, milk, and saline solutions had been transfused for post-partum hemorrhage. He deprecated the frequent use of the forceps, and said that he had arrived at the conclu-

sion that its use had been of far more injury than benefit. He also described a number of mechanical contrivances for aiding childbirth. He then alluded to the use of ergot in labor, suggesting some reasons for the wide difference in opinion which existed with regard to its employment in obstetrics.

Dr. Bartlett's address was received with considerable applause, and was referred to the Committee on Publication.

THE REPORT ON NECROLOGY.—Dr. TONER, of Washington, chairman of the Committee on Necrology, handed in a report of the names of members of the association who had died within the past year, and, on his motion, the report was ordered published.

The meeting then adjourned till Thursday, at 9.30 A. M.

Thursday—Third Day.

The Rev. N. S. RULISON, of St. Paul's Church, read a passage from the Scriptures, and offered a prayer.

DELEGATES TO THE BRITISH MEDICAL ASSOCIATION.—The secretary announced that the president had appointed certain gentlemen as delegates to the British Medical Association and other scientific bodies in Europe, and requested those who were to go abroad to come to him and get their appointments.

AN AMENDMENT TO THE BY-LAWS.—Dr. KELLER, of Arkansas, called up an amendment to the by-laws offered by him last year, giving power to the association, through the Committee on Nominations, to fix the time and place of meetings, and moved its adoption. The motion was seconded and the amendment was adopted.

LAWS CONCERNING THE SALE OF POISONS.—Dr. D. H. BACHELOR, of Rhode Island, offered the following:

Whereas, In the opinion of this association the laws of almost every State are too lax in regard to the sale of toxic agents, by which suicidal deaths are made easy; therefore,

Resolved and voted, That there be appointed by the president one or more persons or members from each of the States, who shall be members of this association, to confer with the Legislature of each of the States, by petition or otherwise, for the enactment of more stringent laws in relation to the sale of all toxic agents.

Dr. Bachelor, in support of his resolution, said that scarcely a day passed that some one did not end his days by taking poison, and called earnestly upon the meeting to exert its influence to secure the passage of laws restraining and limiting the sale of poisonous drugs. The resolution was unanimously adopted.

A TRIBUTE TO THE LATE DR. FARR.—The following resolution was offered by Dr. FOSTER PRATT, of Michigan: *Resolved*, That the labors of Dr. William Farr, of England (recently deceased), in the organization, classification, and compilation of vital statistics—labors begun in 1838, and afterward perseveringly, wisely, and ably continued by him for nearly half a century—are recognized by the medical profession of the United States as an enduring monument to his ability and learning as a physician; as the real initiation and foundation of our own sanitary work; and as a perpetual blessing to present to future generations of our universal humanity, entitling his name and fame to stand with that of the great men whose genius and labors have resulted in beneficial revolutions of the medical, surgical, and sanitary thought and activities of the civilized world.

Dr. Pratt stated that the foregoing resolution was passed by the section in state medicine, and referred to the association, with the request that it be adopted. On motion of Dr. Pratt, the resolution as read was adopted.

TRAINING SCHOOLS FOR NURSES.—Dr. S. D. GROSS, of Pennsylvania, offered the following preamble and resolution:

Whereas, Good nursing is of paramount importance to the

comfort of the sick and to the restoration of their health; and

Whereas, The subject is one which strongly addresses itself to the common sense and kindly sympathy of every intelligent member of society. Therefore be it

Resolved, That this association, fully recognizing the importance of the subject, respectfully recommend the establishment at every county town in our States and Territories of schools or societies for the efficient training of nurses, male and female, by lectures and practical instruction to be given by competent medical men, members, if possible, of county societies, either gratuitously or at such reasonable rates as shall not bar the poor from availing themselves of their benefit.

In support of the resolution, Dr. Gross said: In all our larger cities there are training schools, but in the rural districts of our country no such institutions are to be found. Associations for carrying out this plan can be easily organized in every county by the county societies. Two or three members could be intrusted with this duty, and in this way, in the rural districts, we could have in a comparatively short time excellent nurses.

The resolution was adopted.

A PROPOSED SECTION IN PSYCHOLOGICAL MEDICINE.—Dr. WALTER HAY, of Illinois, offered a resolution providing for the formation of a special section in psychological medicine. Laid over under the rules for one year.

REPORT OF THE COMMITTEE ON METEOROLOGY.—Dr. N. S. DAVIS, of Illinois, next presented the report of the Standing Committee on Atmospheric or Meteorological Conditions and their relations to prevalence of acute diseases. Dr. Davis said that the committee began its work on the 1st of January, 1882, to secure the results of three parallel series of coincident observations in twelve different localities. One series consisted of the observations and records made at the signal-service stations in the twelve localities named: Boston, New York, Philadelphia, Baltimore, Newport, New Orleans, Cincinnati, Chicago, St. Paul, Pittsburg, Denver, San Francisco, and Lansing, full abstracts having been furnished to the chairman under the order of the head of the Signal-Service Bureau. Another series consisted of a daily record of the ozone or active oxidizing agents in the atmosphere in the same localities, made by scientific men, whose names were given in the report of last year. In most of the places this series of observation was continued through the year of 1882. The results were tabulated by Professor Long, and formed a part of this report. To this series was also added in Chicago a daily record of the organic or albuminoid matters in the atmosphere, this being the first record of reliable determinations of the quantity of organic matter in the atmosphere made daily in this or any other country during the year.

The third series of observations consisted in ascertaining and recording the date of commencement of all acute diseases, in order to determine their real causes, by physicians in active practice in the same localities where the other series of observations were in progress.

The facts, as observed, collated, and recorded, were considered very important. Reference was here made to Professor Long's report, in which a description was given of the method of making these observations. Following Professor Long's report, Dr. Davis presented a statement of the expenses incurred by the committee, and ended by asking, on behalf of the committee, that the association adopt various propositions: First, that the committee be authorized to furnish their report for publication as a part of the Transactions of the association; and to continue the investigation now in progress, with the privilege of drawing on the treasurer for so much of the unexpended balance of former appropriations as might be necessary

for the coming year. Second, That the thanks of the association be tendered to the Superintendent of the Signal-Service Bureau, General Hazen, for the generous aid rendered in furnishing the committee with full abstracts of meteorological records made at the several places selected, and also that a continuation of the same favor be requested during such time as the committee might desire.

Dr. DIDAMA's resolution of Tuesday, for the making of reports of the meteorological condition of the various health resorts of the country, was taken from the table, and, on motion, referred, together with the resolutions contained in Dr. Davis's report, to the Committee on Atmospheric Conditions. By request of Dr. Davis, Dr. Didama was made a member of the committee.

THE LATE DR. HUBBARD.—Dr. REED, of Iowa, offered a resolution extending the sympathy of the association to the wife and family of Dr. J. C. Hubbard, of Ashtabula, Ohio, who died while in attendance upon the meeting. It was adopted.

DELEGATES TO FOREIGN ASSOCIATIONS.—The secretary read a list of delegates appointed by the president to represent the association at meetings of foreign associations, as follows: G. J. Engelmann, of Missouri; W. M. Finley, of Pennsylvania; Walter L. Zeigler, of Pennsylvania; M. H. Alter, of Pennsylvania; R. B. Cole, of California; J. H. Warren, of Massachusetts; C. H. Von Klein, of Ohio; W. M. Lawler, of California; Henry A. Martin, of Massachusetts; J. C. Hutchison, of New York; A. M. Hawes, of Michigan; Edward Borek, of Missouri; T. F. Prewitt, of Missouri; E. T. Allen, of Pennsylvania; H. McCall, of Michigan; J. N. Quinby, of New Jersey; S. C. Gordon, of Maine.

A PROPOSITION TO REVISE THE CODE OF ETHICS.—Dr. POLAK, of St. Louis, at the request of the St. Louis Medical Society, offered the following:

A code of ethics is considered essential for such an organization as the American Medical Association, and is equal in importance to the written law of a community. Associations and communities can only be ruled by laws which are made for themselves and by themselves. But the best laws became oppressive and inoperative when the conditions changed which called for their enactment.

A revision and change of such laws becomes then imperative, as is so frequently instanced by the changes of the Constitution of the United States, and of that of every State in the Union. Municipal and corporation charters are changed by the will of the government, which delegate that power to their representatives.

The code of ethics has an existence coeval with the organization of the American Medical Association. It was absolutely necessary then, and it can not be entirely dispensed with now. But in thirty-four years this country has presented so many phases in its development and progress that new laws are being constantly enacted, and old laws are repealed or modified to suit the requirements of the time.

The code has accomplished all it was designed it should, but at present many of its features are obsolete, and not adapted to our wants. The necessity of an early revision is very apparent, is loudly called for in all parts of our land, and can not be repressed much longer. The American Medical Association alone has the right and the power to order a revision; all other medical organizations in affiliation with it can only respectfully ask for it. The time has come when the loud and very soon universal call should be heeded. The excitement and the evil consequences of a schism can be easily averted now, and harmony and fraternal feeling may once more be restored among the members of the medical profession. Therefore

Resolved, First, That the American Medical Association be

respectfully requested to appoint a committee of one member from each State for the purpose of taking into consideration the propriety and advisability of a revision of the code of ethics, and to report thereon at the meeting of 1884.

Second, That the committee be authorized to prepare a code of ethics which in their view will meet the wishes of the profession, and submit the same to the meeting of 1884.

This was tabled under the rule for one year.

THE SELECTION OF PAPERS TO BE READ.—Dr. WILLIAM BRODIE, of Michigan, offered the following resolution:

Resolved, That all papers to be read before the different sections shall, before their reading, have the approval of the chairmen of the same.

Dr. KELLER moved that the resolution be laid on the table. Carried.

A MEMBER BY INVITATION.—Dr. N. S. DAVIS, of Illinois, moved that Dr. M. L. Nardyz, representing several foreign associations, be elected a member of this association by invitation. Carried.

THE ADDRESS IN SURGERY.—Dr. W. F. PECK, of Iowa, chairman of the section on surgery and anatomy, delivered an address, of which the following is a synopsis:

Mr. President and Gentlemen of the Association: In performing the duties of chairman of the surgical section, it is not deemed practicable to compass all that the organic law of the association may contemplate. For in reporting upon the progress made in surgical science it is recognized that many theories are at present announced as facts which, when experience and demonstration shall have thoroughly tested them, may be eliminated, perhaps to reappear when the cycle of professional experience again completes its revolution.

The greatest progress has been made in operative surgery, although other departments have been constantly endeavoring to add new light to the already extensive accumulations. Since Cohnheim gave to the profession, in a complete and formulated manner, the character and importance of the colorless corpuscle in pathological changes, strenuous efforts have been put forth by Pasteur, Koch, and others to unfold the importance of the bacterial germs which, according to demonstrations by Oliver and others, have a normal existence in the blood, the lymph, and the tissues of the body. The surgeon is much interested in these investigations, because of the important statements made by eminent teachers concerning the origin and nature of some forms of articular disease, also the peculiar degeneration which takes place in bone and glandular structures. The interest does not stop with these tissues, for underneath it all the germ theory, which is thought by many excellent men to deal with the greatest of all causes for engendering infectious inflammations, pyæmia, septicæmia, abscess, gangrene, etc., receives a support which, if sustained, will tend to give new and more efficient reasons for the use of antisepticism in practice. It can not be admitted that practical surgery has thus far been directly benefited by Koch's views.

The condition of the problem of the management of wounds and other pathological processes by means of the so-called antiseptic methods suggests a move in the direction of greater confidence in the details of operative procedure, and scrupulous attention to extreme cleanliness in the minutiae of practice. Within the year the antiseptic methods of wound manipulation have been regarded as embracing the spray, the fixed and intimate relations of fresh surfaces, rest, pure-air surroundings, and, when practicable, drainage. While it is admitted that most of the leading surgeons of England are thoroughly wedded to the antiseptic treatment of wounds, there are to be found not a few excellent teachers who reverently believe that nature, under wise assistance from the surgeon, will do more to save life

and limb than the surgeon can do who depends upon strict antisepticism.

It is apparent that the "lost art of bloodletting" in the treatment of inflammation is being reclaimed, and that its induction into a legitimate position among other remedies of conceded value is fast taking place.

Among the many new and important instruments which have been presented may be mentioned the universal or compound racket joint, offered by Dr. Stillman, which can be adjusted at pleasure and permit universal motion.

Perhaps one of the most important steps that have been taken is the utilization of the electric light as a means of diagnosis, and as an aid in performing operations in cavities and places where natural light can be used only with uncertain effect.

Dr. PECK here gave details of many interesting cases illustrative of progress in abdominal surgery, among them one published by Léon Le Fort, of France, who, in June, 1882, was called to see a man, eighteen years of age, seized on the evening of May 25th with severe pain in the abdomen, becoming more like colic about midnight, for which Dr. Tachard gave laudanum and belladonna, and used hot poultices, some relief being received. Next day the pain increased, with special sensitiveness of the abdomen and some tympanites. Castor-oil was given, but was immediately vomited. No evacuation of the bowels could be produced, but vomiting and retching became incessant. There was a small left inguinal hernia, which played, however, no part in the case. Three years before there had been peritoneal inflammation. On June 1st, decided typhoid symptoms appearing, an incision about fifteen centimetres in length was made from just above the pubes to near the umbilicus. The intestines rolled out, and were carefully examined, coil by coil, and returned. Upon meeting with slight resistance when making traction upon a portion of the ileum, the hand was passed along the bowel to the right iliac region, where a constricting ring or band of fibrous tissue was found, which was thick, formed of organized adhesions, and encircling the small intestines for a distance of five centimetres from the cæcum. The width of the band was five millimetres. The constriction was divided by means of scissors, and the intestines were liberated. There were some evidences of congestion, but there was no decided inflammation. The life of the tissues not having been compromised, the parts were thoroughly cleansed and returned, and seven deep silver-wire sutures were passed through the deep tissues and fastened on the opposite sides to bougies. Superficial sutures were employed to retain the surface edges in coaptation. On the night of June 1st there was a spontaneous evacuation of the bowels. On the seventh day the patient subjected the abdomen to undue exertion, when the superficial sutures gave way. They were replaced, and thereafter uninterrupted recovery followed. On July 1st he was well. The general management of the operation was not antiseptic. The man's health seven months after the operation was much better than before, and there was no longer any hernia.

Dr. Peck described, also, a new operation performed by Professor Pietro Loreta, of Bologna, for stenosis of the pylorus. He continued: At present, attention is being particularly called to the kidneys in relation to operative surgery, and doubtless there is ample room for a profitable interchange of opinions and experience. To what extent defective organic action, associated with anæsthesia, is due to the insufficient vitality of the blood, careful future observation only can determine. It is not enough to say that, in any given case, death occurred as a result of fibrin collected on and around one or more of the heart valves. There must be a further cause which influences the dyscrasial condition of the blood.

Dr. David Newman, of Glasgow, has performed the operation of nephrorrhaphy, being the first operation of the kind done in Great Britain, upon a woman for floating kidney. The renal capsule was stitched to the margins of the incision, and deep button-sutures were passed through the kidney substance, thus fixing the organ in its natural position. The patient recovered.

Important additions have been made to our surgical literature, in monographs and revised editions of leading text-books, and in America the profession may be congratulated upon the appearance of two important volumes—one the new volume of the "Medical and Surgical History of the War of the Rebellion"; the other a part of a "Treatise on Human Anatomy," by Dr. Harrison Allen, of Philadelphia.

A rare and most substantial advance is being made in surgery in connection with railway corporations, which will result in the accumulation of a vast amount of statistical information of great service in neural pathology. The surgical bureaus of these corporations will, by their collected experience and tabulations, be qualified to furnish much valuable information to both judicial and popular tribunals. Then justice to pathology and rewards to individuals will receive fairer and more honorable administration.

Dr. Peck's paper was listened to with marked attention by the meeting, and, at the conclusion of its reading, it was referred to the Committee on Publication.

THE ADDRESS IN STATE MEDICINE.—The address by the chairman of the section on state medicine, Dr. FOSTER PRATT, of Michigan, was very interesting, but, owing to lack of space, we can give but a meager report of it. He said:

Mr. President and Members of the Association: Your by-laws require from the chairman of each section a paper on the "advances and discoveries" of the past year in the branches of science included in his section. The somewhat undefined boundaries of the section of state medicine and the purely practical nature of that part of its scientific domain which is defined make the task of the chairman not a little embarrassing.

The speaker here made brief reference to the various topics assigned to his section, stating that psychology, insanity, medical jurisprudence, and medical expert evidence had each received during the year the attention to which they were severally entitled, adding that there had been no noteworthy advance in any of them, and asking the question, which was suggested by recent pathological inquiries, What, if anything, may be done by systematic effort to prevent insanity? He further stated that expert medical testimony occupied an uncomfortable and undignified relation to American law and practice, for which at present there did not seem to be any hope of relief, and suggested that, when our law of trials permitted courts to determine who were experts, and call them to testify for science, relieving them from the appearance of testifying for one side or the other, their evidence would command, more thoroughly than now, the respect and confidence of courts, juries, the parties, and the people. He proposed to apply some other term to his section than state medicine, as the present term required elaborate explanation, adding that, perhaps, by calling it the section of public health, its nature would be more clearly defined; but names, titles, and designations, whether fortunate or unfortunate, had not prevented, and would not prevent, the progress of this latest manifestation of medical philanthropy.

This section of state medicine was established in 1873, since which time a great amount of systematic sanitary work had been accomplished with State aid. Sanitary organizations had been formed and developed, as well as State and local boards of health, which had been educated in some degree for their special work, and to-day intelligent and scientific attention was

paid, as never before, to the hygienic construction of houses, shops, and public buildings. It was easy to see that the people were emancipating themselves from the thralldom that had held them paralyzed and helpless in the presence of epidemics and fatal scourges. They were beginning to learn that the seeds of many diseases and their propagation and diffusion were governed by laws, and that by observing the sanitary laws they might in a measure escape fatal results. They were beginning to understand that the curse did not come causeless—that physical laws might be ignorantly broken without moral guilt, though not without punishment. Prior to 1873 but two States in the Union had established State boards of health—Massachusetts and California. Since that time twenty-five other States had inscribed "Sanitary Reform" on their banners, which practically proclaimed that the safety of the people was the supreme law—that public health was public wealth—that to promote the health of the people was the first duty of statesmen. Not many years would pass before every State in the Union would be engaged in organized effort to battle with the unnecessary ills and evils that tortured humanity and enfeebled the State. Facts had demonstrated that small-pox could be prevented. Small-pox in the popular mind stood at the head of dangerous and dreaded diseases by reason of its communicability and loathsomeness. It also stood, thanks to Jenner's grand discovery, at the head of preventable diseases.

The speaker here referred in glowing terms to the late Dr. William Farr, the great vital statistician of England, who died some weeks ago. Even our best men, he continued, were liable to be thrust aside as visionary theorists, or perhaps as "salary grabbers," in the words of the congressional debates; but our Davy Crocketts in effect said to us: "Be sure you are right, then go ahead." But we must win the legislators to our side that were not now with us in justifying the organization of State boards of health.

The first successful movement made in Massachusetts and in the United States in the direction of State sanitation was instigated by a lady. Women had a great stake in this sanitary movement. The cynical and incredulous would ask, perhaps, "How many lives per annum do you save?" To this, as yet, we could only answer, "We do not know. Our own statistics have not been carried far enough." But this we did know, that, whereas, by Dr. Farr's tables, the average duration of human life in England thirty years ago was for males 39 $\frac{9}{10}$ years; it was now, after only seven years of organized sanitary work, 41 $\frac{9}{10}$ years—an addition of full two years to the duration of male life in all England. The effect on the average of female life was still more striking, adding nearly three years and a half—all these results after only a few years of work. Who here could doubt that the result in England would be essentially duplicated in America? Our public health work was yet in its infancy, and much remained to be done. He would here call attention to the remarkable unanimity with which State medical societies, State boards of health, the American Public Health Association, this American Medical Association, and the medical profession generally had expressed their approval of the organization and the action of the National Board of Health. The only valid objection ever urged to its formation, or rather its possible action, was that based on constitutional questions. On this question the people would soon decide in whose hands they prefer to intrust their health and lives and commercial interests, but it was gratifying to know that medical sentiment was nearly unanimous for a national board.

The speaker referred to the recent discoveries of the tubercle bacillus and to the evidence produced, that it was the specific germ by which tubercular phthisis was produced and might be transmitted, and, in closing, said we seemed, indeed, to be on

the eve of great discoveries in ætiology and pathology, which without doubt must greatly increase our practical knowledge and improve our treatment of many important maladies. As medical practitioners, if we could not individually help to hasten the anticipated result, we could help to swell the multitude who were anxiously waiting for it. But as medico-legal sanitarians, impatiently waiting for newly and firmly established truth, on which to build improved hygienic and sanitary methods, we, metaphorically, held our breath.

During the reading of this paper the speaker was frequently interrupted with applause.

REPORT OF THE TREASURER.—The treasurer, Dr. RICHARD J. DUNGLISON, of Pennsylvania, submitted his report, showing a balance on hand of \$903.93. The report was accepted.

REPORT OF THE LIBRARIAN.—The librarian, Dr. C. H. A. KLEINSCHMIDT, of the District of Columbia, then reported that the whole number of volumes and pamphlets in the library of the association was 5,713, and recommended that home and foreign exchanges be requested to contribute their publications; and, further, that a hundred dollars be placed at his disposal for the purpose of replacing the binding of books. This report was also accepted.

REPORT OF THE COMMITTEE ON NOMINATIONS.—The Committee on Nominations then reported, with the following results: President, Austin Flint, Sr., of New York. This was received with deafening applause. Vice-Presidents, R. A. Kinlock, of South Carolina; T. B. Lester, of Missouri; A. L. Gihon, of the navy; S. C. Gordon, of Maine; Treasurer, R. J. Dunglison, of Pennsylvania; Librarian, C. H. A. Kleinschmidt, of the District of Columbia. The place of meeting for 1884, Washington, on the first Tuesday of May. Chairman of the Committee of Arrangements, A. Y. P. Garnett, of Washington; Assistant Secretary, D. W. Prentiss, of the same city. Judicial Council, F. D. Cunningham, of Virginia; H. O. Marcy, of Massachusetts; W. O. Baldwin, of Alabama; J. S. Billings, of the army; Freeman W. Miller, of the Marine-Hospital Service; Eugene Grisom, of North Carolina; R. N. Todd, of Indiana; to fill vacancy in Judicial Council for class of 1884, E. W. Clark, of Iowa. The names of the chairman and secretaries of the various sections were then read as follows: Practice of Medicine—Chairman, J. V. Shoemaker, of Pennsylvania; Secretary, W. C. Wile, of Connecticut. Obstetrics and Diseases of Women—Chairman, T. A. Reamy, of Ohio; Secretary, J. T. Jelks, of Arkansas. Surgery and Anatomy—Chairman, C. D. Parkes, of Illinois; Secretary, H. O. Walker, of Michigan. Ophthalmology, Otology, and Laryngology—Chairman, J. J. Chisolm, of Maryland; Secretary Thompson, of Indiana. Diseases of Children—Chairman, William Lee, of Maryland; Secretary, W. R. Tipton, of New Mexico. Dental and Oral Surgery—Chairman, T. W. Brophy, of Illinois; Secretary, John S. Marshall, of Illinois. State Medicine—Chairman, D. J. Roberts, of Tennessee; Secretary, Franzoni, of the District of Columbia. The Committee on State Medicine consists of one member from each State of the Union, as follows: Alabama, Jerome Cochran; Arkansas, J. J. McAlmont; California, W. F. McDermott; Colorado, Charles Dennison; Connecticut, C. W. Chamberlain; Dakota Territory, J. B. Van Nelsor; Georgia, J. P. Logan; Illinois, O. C. De Wolf; Indiana, George Sutton; Iowa, W. S. Robertson; Kansas, D. W. Stormont; Kentucky, J. P. Thompson; Louisiana, S. C. Chaillé; Maine, S. H. Weeks; Maryland, John Morris; Massachusetts, H. I. Bowditch; Michigan, F. K. Owen; Minnesota, C. N. Hewitt; New Mexico, M. M. Milligan; District of Columbia, S. Townshend; Delaware, L. P. Bush; Oregon, H. Carpenter; Mississippi, H. H. Gault; Missouri, Lester Hall; Nebraska, L. B. Larsh; New York, E. M. Moore; New Jersey, Ezra M. Hunt; North Carolina, James McKee; Ohio, T. L. Neal; Penn-

sylvania, R. J. Duglison; Rhode Island, C. H. Fisher; Tennessee, C. O. Fite; Texas, Thomas C. Wooten; Vermont, S. W. Thayer; Virginia, J. L. Cabell; West Virginia, Moffit; Wisconsin, J. T. Reeve; the Army, J. R. Smith; the Navy, J. M. Brown; the Marine-Hospital Service, P. H. Bailhache; South Carolina, Manning Simmons.

A COMMUNICATION FROM THE PRESIDENT-ELECT.—Dr. DIDAMA, of New York, a member of the Nominating Committee, read the following letter from the president-elect:

"Circumstances render it necessary for me to return early to-day to New York. Will you kindly express to our brethren, the members of the American Medical Association, with my sincere thanks, an assurance that I thoroughly appreciate the great honor which has been conferred upon me.

"I accept the honor, feeling assured that I may confidently expect co-operation and indulgence in my efforts to fulfill the duties which it involves.

"Yours, very truly,

"AUSTIN FLINT."

The secretary read a letter from Dr. A. L. Gihon, of the navy, which stated that he was a firm believer in the code of ethics in all its parts.

President Atlee here tendered his thanks to the ladies for the beautiful basket of flowers sent him.

Friday—Fourth Day.

The Rev. CHARLES TERRY COLLINS opened the session with a prayer.

PROPOSED AMENDMENTS TO THE CONSTITUTION.—An amendment to the constitution, submitted last year by Dr. N. S. Smith, of Dakota Territory, was taken up and acted upon as follows:

"To provide for the admission to membership of two delegates from the Medical Bureau of the United States Indian service, to be nominated by the surgeon-in-chief of that bureau and approved by the Secretary of the Interior." This amendment was tabled.

The amendment offered by Dr. J. M. Toner, of the District of Columbia, in relation to the office of permanent secretary being abolished, and hereafter annually nominating a secretary to serve without compensation, was withdrawn by that gentleman.

The amendment offered by Dr. J. H. Sears, of Arkansas, that the chairman and secretary of each section may add any number of earnest workers to their section, in addition to those named by the Nominating Committee, and that the librarian be made a permanent officer, was tabled.

The amendment offered by Dr. J. W. Smith, of Iowa, to the by-laws, Article II, section 8, to strike out the words "but without the right of voting," was then taken up. After some discussion, action on the amendment was indefinitely postponed.

ADDRESSES DISPENSED WITH.—The address by the chairman of the section in Diseases of Children, Dr. R. F. BLOUNT, of Indiana, and that of the chairman of the section in Dental and Oral Surgery, Dr. D. H. GOODWILLIE, of New York, were not read, but referred to the Committee on Publication. On motion, the reports of secretaries of sections were referred to the Board of Trustees.

The PRESIDENT announced the appointment of Dr. William Brodie and Dr. H. L. Walker as delegates to attend the meeting of the Canadian Medical Association.

REPORT OF THE JUDICIAL COUNCIL.—Dr. N. S. DAVIS made the following report on behalf of the Judicial Council:

In regard to the petition of Dr. D. W. Day, asking for a rehearing of his case, which was adjudicated last year, the council had ordered the return of the petition of Dr. Day, with leave granted to supplement said paper by a written statement of

the character of the new evidence which he proposes to introduce, and the council had declined to act upon the case until the opening of the session next year, from the impossibility of notifying all the parties concerned.

In the case of Dr. D. H. Goodwillie, the council had decided that the registration of Dr. Goodwillie should be canceled, and the annual dues be returned to him.

THE MERCANTILE MARINE MEDICAL SERVICE.—Dr. A. N. BELL, of New York, offered the following resolution, passed in the session of the section in state medicine, and referred to the association:

Being impressed with the truthfulness and importance of the Memorial of the Parliamentary Bills Committee of the British Medical Association, under date of March 17, 1883, the American Medical Association urge upon the Congress of the United States the subject of competent medical and sanitary service, and proper provision for its maintenance, on board all transoceanic passenger vessels, and that a committee of five be appointed to promote this object, and to report upon the condition of the subject at the next session.

PAPERS READ BEFORE THE SECTIONS.—Dr. BELL also offered the following preamble and resolution:

Whereas, The practice prevails of reading papers before the several sections at the option of their authors, without sufficient regard to the special objects for which the sections were created, therefore,

Resolved, That all papers hereafter offered or intended to be read before the association or any of its sections, except the address of the president and the chairman of the sections, shall be first referred to the trustees of the journal for classification and appropriate reference. Tabled.

The PRESIDENT announced the following Committee on Surgical Service aboard steam and other ocean vessels: A. N. Bell, of New York; A. L. Gihon, of the navy; J. N. Quinby, of New Jersey; H. O. Marcy, of Massachusetts; Henry H. Smith, of Pennsylvania.

THE LATE SURGEON-GENERAL BARNES.—Dr. WILLIAM BRODIE, of Michigan, offered the following resolution:

Whereas, This association takes a deep interest in the efficiency of the Medical Department of the United States Army; and

Whereas, The late chief of this department, Surgeon-General Joseph K. Barnes, contributed largely to the efficiency of this department in the work which it has been and is doing for medical science and education, therefore,

Resolved, That this association receives with profound regret information of the death of General Barnes, and desires to record its appreciation of the great value and importance of the work which he has done, and enabled others to do, for the advancement of medical science.

Resolved, That this association recognizes the energy and ability which characterized the administration of General Barnes, and his services in connection with the Army Medical Museum and Library, and the publication of the "Medical and Surgical History of the War," and other works of great value to the profession.

Resolved, That a copy of these resolutions be sent to the Surgeon General of the army. Adopted.

CREMATION.—Dr. J. M. KELLER offered the following resolution: That in the very near future, if not now, cremation will be done as a sanitary necessity in the large cities and popular districts of the country. Referred to the section in hygiene.

A vote of thanks was tendered to the secretary and treasurer for their efforts and the satisfactory manner in which they have severally discharged their duties.

THE EXAMINATION OF RAILROAD EMPLOYÉS.—Dr. TURN-

BULL, of Pennsylvania, offered the following: *Resolved*, That the Legislature of each State be petitioned at its annual session to pass a law requiring all railroad employes to be examined with reference to acuteness of hearing before taking charge of any railroad trains or tracks. Laid over for a year under the rule.

CLOSING REMARKS BY THE PRESIDENT.—The PRESIDENT said: Gentlemen: I am about to vacate the chair with which you have honored me, and in doing so I do it with the greatest possible satisfaction. I expected to have the honor of inducting into the chair a gentleman who certainly is in every respect most worthy of it [applause]—a gentleman who has done as much for the medical literature of the country as almost any other, and one whom I characterized a few days ago, in a very different place, the Laennec of America. I most heartily thank you for the support you have given me, and I can only say that I hope you will forgive my shortcomings. I bid you an affectionate farewell. [Prolonged applause.] Just before we adjourn, gentlemen, I will introduce to you the Second Vice President, Dr. Lester, in the absence of the President and First Vice-President.

Dr. GARCELON, of Maine, offered the following resolution:

Resolved, That the thanks of this association be extended to Dr. J. L. Atlee, the retiring President, for the able, dignified, and satisfactory manner in which he has presided over the deliberations of the association, and that he retires with the best wishes of every member of this association for the long continuance of a life so highly useful not only to the present, but to all future generations. Adopted unanimously.

Dr. Lester then declared the association adjourned, to meet in Washington the first Tuesday in May, 1884.

MASSACHUSETTS MEDICAL SOCIETY.

THE one hundred and second annual meeting was held in Boston on Tuesday and Wednesday, June 12 and 13, 1883.

Tuesday—First Day.

The morning having been spent in inspecting exhibits of sanitary appliances and in visiting the various hospitals, the meeting was called to order at twelve o'clock by the Vice-President, JOHN H. MACKIE, M. D., of New Bedford.

A CONTRIBUTION TO THE STUDY OF THE TUBERCLE BACILLUS.—Dr. H. C. ERNST, of Jamaica Plain, read an interesting paper with this title. He gave a *résumé* of the work done by various foreign experimenters, described the bacillus, and gave the process of its preparation for examination. He then reported a series of twenty-five observations made by himself, and stated as a result that the tubercle bacillus was always present in tuberculosis, but that it was not present in caseous phthisis; that the bacteria were present in tubercular disease of the joints or affections of any of the organs in which there was a tubercular deposit; that it had the power of producing infection, and that carbolic acid and other known disinfectants did not destroy this power; that the bacilli were often found in the sputa before a diagnosis of tuberculosis could be made from the physical signs. The greater the number of the bacilli the more active was the disease, and an accurate prognosis could be formed from the rapidity of the increase of the bacilli. In his cases the temperature of the body had not seemed to be obviously affected by the increased or diminished number of the bacilli present. Beautiful microscopic specimens of the bacillus of tuberculosis were shown and demonstrated by the reader.

THE USE AND ABUSE OF ERGOT.—This was the title of a paper read by Dr. G. L. WOODS, of Springfield. After an account of the physiological, toxicological, and therapeutical actions of

the drug, the writer recommended that it should never be given in obstetrical practice unless the uterus was empty, except to ward off an impending hæmorrhage. After delivery it was his custom to administer ergot for several days, as by its action involution of the uterus was aided.

Dr. WILLIAM A. DUNN, of Boston, followed with a paper on the same subject. The writer prefaced his paper by referring to the necessity of a more thorough, scientific, therapeutic study into the action of drugs. He then gave a description of the fungus, its history, the history of epidemics of ergotism, and a *résumé* of the physiological action of the drug as recorded by various observers. He recommended the use of ergot in various peripheral nervous diseases; but especially urged that it be given freely to "natural bleeders" before surgical operations, showing its value in this respect by reporting cases in which he had carried out this treatment with success; his rule being to give ergot for several days before the operation, and give a subcutaneous injection of ergotin twenty minutes before operating. The statement was made that ergot did no good in metrorrhagia, and that in menorrhagia it more often increased the trouble.

The main object of the paper was to discuss ergot from an obstetrical standpoint, however, and to emphasize the fact that the drug, even at the present day, was most carelessly used and abused in the ordinary routine practice, which stopped short of criminality only in that, in those cases in which death took place, the element of intention to kill was absent. The reader stated that he had attended between six and seven hundred labors. Formerly he gave ergot to multiparæ when the head was low, and after the membranes had ruptured, but he had met with so many cases of cyanosis, often requiring prolonged and anxious efforts for resuscitation, that he determined never again to give ergot till the uterus was empty. In the first stage of labor he never gave ergot, because tetanic uterine contraction was substituted for the normal rhythmical action of the organ, tending to prevent the proper dilatation of the os uteri, and to deprive the fœtus of its blood-supply in consequence of compression of the uterine vessels.

In the second stage its exhibition was likely to produce the death of the fœtus by pressure on the umbilical cord, and, after expulsion of the child, an hour-glass contraction of the uterus, with retained placenta, was liable to result.

In women of lax fiber, and with a roomy pelvis, ergot might be used, in small doses, when there was uterine inertia, if the forceps was not available, or if the obstetrician was timid in the use of the instrument; but it was better not to employ the drug, as success in a thousand cases would not compensate for the destruction of one infant, and many a certificate has been sent to the Board of Health in which "still-born" should be changed to "death from ergot." The rule resulting from his experience was to wait, as ergot was never absolutely necessary, unless we desired to control a post-partum hæmorrhage, or to anticipate one; and in either case large doses were not to be given unless the uterus was empty.

The danger to the mother from the use of ergot was, that it changed the character of the pains from the regular action to a continuous strain, and rupture either of the uterine body or of the cervix was liable to occur.

When ergot was given, the action of the child's heart should be watched, and with the first sign of failing strength the forceps should be applied to rescue the child from impending death from asphyxia.

The use of the drug was recommended to a limited degree in cases of placenta prævia, and in cases of abortion.

The afternoon session opened at three o'clock, ALFRED HOMER, M. D., of Watertown, President, in the chair.

THE CHEMISTRY AND PHYSIOLOGY OF GLYCOGEN.—Dr. J. W. WARREN, of Boston, read a paper on this subject, of such a nature that a condensed report can not be given that would either do it justice or be satisfactory to the reader.

PHLYCTENULAR DISEASES OF THE EYES.—Dr. O. F. WADSWORTH, of Boston, read a paper in which he stated that the affection was characterized by the eruption of vesicles or pustules on the conjunctiva or cornea, and was often attended by much apparent photophobia. The disease was familiar under the names of phlyctenular, pustular, scrofulous, and lymphatic ophthalmia, conjunctivitis, or keratitis, or herpes or eczema of the conjunctiva, or cornea, fascicular keratitis, or ulcer of the cornea.

It had been shown that affections of the conjunctiva and cornea make up half the sum of eye-diseases—Horner having found the cornea involved in 27.2 per cent., and the conjunctiva in 21.7 per cent.; and, according to the same authority, phlyctenular conjunctivitis and keratitis constituted more than half the diseases of these membranes in children. While the vast majority of those affected were young, adults were not wholly exempt, though with them the disease was comparatively rare. By the laity the malady was looked upon as a troublesome but innocent accompaniment of teething, or as a sequela of measles or other exanthem, and as not specially requiring treatment; consequently, "household remedies" were allowed to aggravate it.

The term "herpes," often applied, was a misnomer. There was no evidence that the eruption had any special connection with the sensory nerves, as was the case with herpes generally. Eczema, on the other hand, was a frequent accompaniment of phlyctenulæ, the ocular changes resembling in some degree those found in eczema. Yet there seemed hardly ground enough for adopting the title of eczema of the conjunctiva, as proposed by Horner.

The main characteristic was the eruption of vesicles or pustules. Its powers might be exhausted with the eruption of one phlyctenula, or successive crops might appear at irregular intervals; they might be situated on the conjunctiva, the cornea, or both, and might extend from one to the other. The duration of the individual efflorescence depended, in the main, upon its size and situation; on the cornea the course was slower than on the vascular conjunctiva.

A description was then given of the progress of the vesicles to ulceration. The loss of substance hardly extended deeper than the epithelial layer, but an infiltration leading to annular ulceration might occur. There was also a tendency to the formation of vessels, and, when this had continued for a long time, a sort of pannus was developed. The degree of injury to the eye as an organ of vision depended on the situation of the lesions. A considerable opacity near the circumference of the cornea might be of little moment in this respect, yet, without directly interfering with the entrance of light through the pupil, it might do harm by changing the proper curve of the cornea.

The most troublesome subjective symptom was photophobia. It seemed sometimes as if there were an effort to drag all the features—the forehead, the cheeks, and the lips—to one common center, and keep them over the eyes; yet it would be a mistake to suppose that the severity of the ocular affection could be accurately gauged by the photophobia.

In order to make a definite diagnosis or prognosis, inspection of the eye was absolutely necessary, and, to do this, the elevator of Desmarres should be used, otherwise injury to the eye was liable to occur in consequence of the patient's struggles.

The treatment might be divided into general and local. As the disease was "scrofulous" in the broad sense of the word, general treatment was of the greatest importance, and fresh

air, light, and food could not be overestimated. Even in the coldest weather out-door exercise was to be recommended. Blepharospasm was to be feared, not for itself, but for the prejudicial consequences it entailed. It was the irritation of the corneal nerves chiefly that excited this; therefore atropine should be used. Cold applications gave relief. All friction of the lids must be prevented. Excoriations about the eye might be treated with a solution of nitrate of silver or with zinc ointment. When the eruption was limited to the cornea, a borax collyrium was often all the local treatment needed. Calomel, dusted on till congestion disappeared, often prevented a relapse.

In general, astringents were to be avoided. The sluggish, deep infiltrations, whether at the edge of the cornea, or in a more central situation, showing little or no tendency to the formation of vessels, demanded, besides atropine, the application of hot fomentations at short intervals.

Many and various had been the remedies recommended to promote the absorption of corneal opacities left by this and other diseases, but the speaker's experience had been that nature produced the best results.

MINOR INJURIES OF THE SPINAL CORD.—A paper on this subject was read by Dr. B. H. HARTWELL, of Ayer. The writer spoke of the importance of paying close attention to all the symptoms in these minor injuries, not only from a pathological, but also from a medico-legal point of view. Often at first, when there was no sign of injury and the symptoms did not come on early, the patients were looked upon as malingersers, and treated as such. The objective and subjective symptoms should be carefully classified, and it should be remembered that they were often simulated. The statement of Hammond, that no verdict should be given unless the objective symptoms were present, was commented upon.

Nine cases of minor injury to the spinal cord were reported, in which the patients had been under observation for a long time. Of this number, three recovered, three were a long time under treatment and got no better, one got worse, one got better but not well, and one improved at first and then had a relapse. Though the symptoms were often late in coming on, the prognosis was generally favorable as to improvement, if not as to complete recovery.

The treatment consisted in relief from care, rest, and any position that was easy, the horizontal position often aggravating the symptoms. The medicinal treatment was ergot and belladonna, the latter being specially indicated if there was any vesical complication. The ergot was given in large doses, as was also the belladonna, the latter giving great relief when there was pain. Digitalis was recommended, but strychnine was contra-indicated at the start.

Warm sponges to the spine, counter-irritation, and dry cupping were also recommended.

PLUMBING APPLIANCES.—This was the subject of the closing paper of the day, by Professor T. M. CLARK, of the Institute of Technology. It gave a history of traps and the various appliances used by plumbers, and was illustrated by showing models and explaining their uses.

Wednesday—Second Day.

The session to-day, being the annual meeting proper, was called to order at nine o'clock, A. M., the President, Dr. Hosmer, in the chair.

The reports of the secretary and treasurer were read and accepted. After some further incidental business, the reading of communications was resumed.

RECENT CHANGES IN THE METHOD OF MEDICAL INSTRUCTION.—Dr. E. N. WHITTIER, of Boston, read a paper on this subject. A sketch of the old way of receiving a medical education was

given, the two-years' tickets for four months' tuition and a certificate being formerly all that was required. The value of the certificate could be seen when it was shown that the preceptor very seldom, if ever, asked his pupil a question concerning medicine, the student's time being spent in preparing drugs and in looking after the chores; and in the mean time, if a spare opportunity presented itself, he had the use of the doctor's books. This condition the speaker contrasted with the method of the present day, when four years' continuous work was expected, with, in many cases, an additional year in a hospital.

There was one faculty that was formerly trained which was now lost sight of in the anxiety to trace the science of medicine, to wit, individual observation. Dr. Jackson, in speaking of Dr. Holyoke, the first president of the Massachusetts Medical Society, said: "After a time he allowed me to walk with him," and this stimulation of the powers of observation was the great strength of the old system.

The object of the leading schools was not to graduate large classes, but to graduate well-qualified classes. In addition to extending the course to four years, as Harvard had done, it had been proposed to include in the preliminary examinations anatomy, chemistry, and physiology, so that laboratory investigation might be begun at once; and in the second year to have didactic instruction give place to clinical investigation. The art of observation must be cultivated, and the best way to accomplish this was to divide the classes into small sections, so that each pupil was brought into personal contact with the instructor.

The treatment in every case should be carefully marked out. If this were not done, but simply the history of the disease given, he who taught the art of healing was not a physician but a naturalist.

No class exercise was complete unless the blackboard was used, on which a display of the rational and physical signs was made, and a classification of symptoms given. The true secret in medical teaching was for the instructor to carefully do his work the first part of the year; to train the students in the correct way to investigate a case, and have each pupil do the work before the class the latter part of the year.

NEURASTHENIA.—Dr. J. S. GREEN, of Dorchester, read a paper in which he said that neurasthenia, or nerve-tire, was a disease of itself; it was not anæmia or hyperæmia, though either might be associated with it. The terms "nervous exhaustion" and "nervous exhaustibility" should not be confounded.

The chief cause of this condition was the mental activity which had its origin in our free schools and free press, stimulating one to put into action all his nerve power, leaving none in reserve. Thus the increase in rapid communication of knowledge, the ambition to lead in all we undertook, and the competition in life, brought with them cares and anxieties. The condition was not brought on by business or by study, but by competition and cramming; not by work, but by worry: and it was this that was sapping the energies of our people.

The Anglo-Saxons had been the first to feel the poison; they would be the first to find the antidote, and thus instruct the other slower races of people.

By our manner of living we no longer had girls; they became young ladies, then women, but skipped the period of girlhood. This was not so marked with boys; therefore we had more patients from the former than in the latter class.

Success in treatment lay in adjusting the patient to the situation, and regulating the expenditure of nerve force in the ratio of its production. Success could generally be promised, as there was a latent strength that could generally be drawn upon till the nervous centers recovered their former state. One great

point was, not to let the patient compare her condition with that of her neighbor.

Food, exercise, and rest, in the right proportion as each case required, were all that was necessary. Tonics were often useless and seldom necessary, provided the assimilation and digestion were properly performed. Sprinkling with cold water and friction were useful.

Uterine troubles might be ignored generally, though sometimes they required special treatment. Home was the best place for such patients, though a temporary change might do good.

THE ARTIFICIAL FEEDING OF INFANTS.—Dr. J. W. SPOONER, of Hingham, read a paper in which he said that when a mother could not nurse her child the question came up, What shall its food be? In the city a wet-nurse was recommended, but to those who lived in the country and did not want to feel as if they were living on a volcano, cow's milk was recommended.

The foods were divided into three kinds: 1. Milk. 2. Condensed milk. 3. Artificial foods.

As a result of his experiments, the reader had found that freshly drawn cow's milk was acid, but soon became alkaline. The conclusion he had drawn from his experience was, that artificial foods were not to be relied upon, though, of these, he had found "Mellen's food" to be the best. Condensed milk contained cane-sugar, and, though babies often grew fat upon it, yet when taken sick they lost strength rapidly.

The only objection to cow's milk was the hard curds that were apt to form, to soften which gelatin, arrow-root, and barley-water had been recommended; but he had found that Irish moss, boiled with water and then added to the milk, with a little lime-water, produced the best results. The reason for it was, that there was no starch in the mixture. Often he added cream.

THE EARLY SYMPTOMS OF GENERAL PARALYSIS OF THE INSANE.—Dr. W. B. GOLDSMITH, of Danvers, read a paper which contained a careful analysis of one hundred cases, and was of such a nature that a curtailed report can not satisfactorily be given.

THE ANNUAL DISCOURSE was given by Dr. AMOS H. JOHNSON, of Salem. He took for his theme the motto of the society, "*Natura duce*," and suggested that it should be changed to read, "*Ratione et natura ducibus*." He referred to the wonderful progress made in the study of astronomy and electricity during the last few years, and then turned to a consideration of the progress in the science of medicine, saying that it was chiefly the result of judgment and critical observation. He spoke of the danger of allowing patients to follow Nature as a guide, declaring that, in many instances, her advice proved fatal, and the physician must take the guidance of Nature's control over his patients. The indifference with which the presence of some contagious diseases was regarded was one of the moral influences which had to be met. The science of preventive medicine was of recent growth, but the facts acquired were of great value. He expressed a hope that the time would come when the State Board of Health would be relieved from fear of political influence, and attain its greatest usefulness. Nature could not be relied on to best interpret her suggestions to men; a careful study of the results obtained by the investigations of others was necessary; observation was not interpretation, to see was not to learn. A vote of thanks to Dr. Johnson was passed.

At one o'clock the members of the society walked to the Boston Skating Rink for the annual dinner. About eight hundred were present.

Dr. FRANCIS H. BROWN, of Boston, was anniversary chairman.

After dinner, speeches were made by Dr. Hosmer, Dr. Johnson, President Elliot, the Rev. E. A. Horton, and others.

Reports on the Progress of Medicine.

QUARTERLY REPORT ON MATERIA MEDICA, THERAPEUTICS, AND TOXICOLOGY.

No. XIII.

By GASPAR GRISWOLD, M.D.

TRANSFUSION OF BLOOD.—In a paper read before the Obstetrical Society of London ("Brit. Med. Jour.," Jan. 27, 1883), Mr. C. E. Jennings remarked that the nutritive value of defibrinated blood must be very small. But the value of transfusion depended primarily not upon the nutritive value of the substance injected so much as upon the dynamic effect of the operation. This latter could be procured more safely by the intravenous injection of saline solutions, and he was inclined to place more reliance upon this expedient in emergencies than upon the traditional operation of transfusion. In the course of the discussion that followed the reading of Mr. Jennings's paper, Dr. Aveling approved of the suggestion to rely mainly upon the intravenous injection of saline solutions; he further remarked that raising the legs of the patient above her head was a more efficient measure in syncope from loss of blood than was generally appreciated. Dr. Graily Hewitt thought the chief point in the paper was the attention directed to the dynamic effect of transfusion. This he believed to be very important. There was great difficulty in deciding when the operation was necessary. Patients might rally after post-partum hæmorrhage, and yet die some hours afterward without further loss of blood. J. Matthews Duncan regarded transfusion as merely a hopeful proceeding, demanding encouragement and study. Patients who survived it were often said to have been saved by it—a manifest mistake. Death had often been caused by it. Injections of plain water had been used with brilliant though only temporary results in cholera; he would like to see them fairly tried in hæmorrhage. The attempt to use blood introduced most of the dangers and difficulties of the operation, and these were increased by complicated apparatus. Dr. Herman said that, at the London Hospital, saline intravenous injections had been used in four cases of puerperal hæmorrhage, of which two recovered. In travenous injection of pure water had been used once; the case had done well.

[The operation of transfusion is comparatively safe in animals. It has been done oftenest in dogs, which are not killed by the entrance of small quantities of air into the veins. In 1667, a dog, old and deaf, had his hearing improved, and was almost rejuvenated by transfusion of blood from a young animal. This caused great enthusiasm, and the operation was soon so frequently and rashly resorted to that a number of deaths resulted, and it was forbidden by law in Paris in 1668. In later days it has been revived, but with more moderation. The dangers of the operation are: the entrance of air into the veins, the presence of coagula in the blood injected, and the causation of phlebitis by the introduction of the cannula. It has never been considered safe to inject the blood of animals into the human subject, and it is a further drawback to the operation that it is rarely possible to obtain human blood in time to meet the requirements of the cases in which the operation is called for. The injection of even small quantities of fluid into a vein causes in the human subject such embarrassment of respiration and irregularity of heart-action that the operation must usually be suspended before more than three or four ounces have been introduced. The amount of blood, more or less impoverished by defibrination and filtration, which can be transfused at one time is, therefore, so insignificant compared with the hæmorrhage

which has prostrated the patient, that many authorities have felt inclined to attribute the resulting benefit rather to the dynamic influence of the operation upon arterial tension than to the red corpuscles introduced into the circulation. This is not the view of Prévost and Dumas, who asserted that the results of transfusion depended upon the corpuscles, and could not be obtained by the injection of serum from which they had been removed. Modern experience, however, is against these observers, and to-day several fluids have been injected to take the place of transfusion. The injection of milk has some advocates, being preferred to water and saline solutions, on the ground that it is nutritive. The milk, however, must be still warm from the cow, and not acid; and even then there is a danger of fatty embolism of the cerebral capillaries. It will be remembered that the diameter of many of the cerebral capillaries is very small—not more than the one six-thousandth of an inch; the fat globules of the milk are frequently not small enough to pass through, and the same train of symptoms is observed which occurs in lipæmia from fracture of long bones where the medullary fat gets into the circulation. These objections to the intravenous injection of milk have told against it, and it has not been so much employed of late. Saline solutions are probably the safest method of stimulating the failing powers; a solution whose saline constituents are the same as those of the blood may be injected with safety, and will probably accomplish all that could be gained by the more hazardous operation of transfusion. The author is not aware that the injection of defibrinated blood into the peritoneal cavity, as practiced by Ponfick, has ever been resorted to in this country. Compression of the femoral and brachial arteries, with the intravenous injection of two drachms of a fifty-per-cent. solution of ordinary aqua ammoniæ in water, is probably the most efficient means of resuscitating those who are moribund from hæmorrhage. In all the instances in which the author has observed or heard of good results following the transfusion of defibrinated blood, each ounce of it contained three grains of carbonate of ammonium, ostensibly to prevent further coagulation. It has always appeared to the author that to this ammonia was largely due the temporary improvement which followed the operation. It is, perhaps, not superfluous to mention here that intravenous injection can not be performed, even with a hypodermic syringe, through the skin. The vein selected must be exposed by an incision through the skin before the needle can be introduced into it with accuracy and precision.]

THE INFLUENCE OF SULPHUROUS ACID IN ARRESTING PHTHISIS.—Herr Kircher, a pupil of Liebig, has been, during forty-four years, director of a factory in which a special form of manufacture is employed which involves the formation of sulphurous acid by the burning of sulphur. He maintains ("Lancet," Jan. 20, 1883) that none of his people have ever suffered from consumption. He recommends the following treatment in the case of tuberculous patients: They should be brought into a room in which one to two drachms of sulphur are burned every hour over a spirit lamp. At first, coughing, more or less aggravated, takes place; after eight or twelve days the bacteria disappear and cease to irritate the lung. To complete the cure, the patients should be brought into rooms which contain some aromatic vapors. [This raises the old question, Can bacteria be killed by disinfectants so little concentrated that they are not inimical to human life? All experiments made hitherto seem to show that they can not.]

DAMAGE TO THE HEART FROM THE INHALATION OF NITROUS OXIDE.—Dr. W. Otley (*ibid.*) records a case in which an existing valvular lesion was unfavorably influenced by the administration of nitrous oxide gas. The patient was a young woman who had suffered from rheumatic fever, and was left with a

slight mitral lesion. There was a faint murmur, at times hard to hear; the heart was but little enlarged, and there were no functional disturbances. On two occasions this patient took the gas, in order to escape the pain attending the extraction of teeth. The first time there was no trouble; the second time, a few days later, so much dyspnoea and cardiac irregularity were developed that the administration of the gas had to be suspended. Subsequently the patient suffered from palpitation and dyspnoea; the heart was found acting irregularly, and the murmur was very much louder. The heart now, for the first time, gave evidences of inadequacy. This case is interesting from its rarity, the gas having been given indiscriminately with surprisingly few accidents.

VENESECTION.—In an interesting paper on this subject (*ibid.*, Jan. 6, 13, 1883) Dr. W. H. Broadbent regrets that modern sentiment is so strongly against it, and proceeds to describe some conditions in which it is a most efficient remedy. In pulmonary congestion from pneumonia, severe bronchitis, or mitral stenosis, especially when attended with considerable dilatation of the right heart, as denoted by a systolic tricuspid murmur and venous pulse in the jugular, it affords immediate relief. In these cases venesection to even so small an amount as eight ounces causes the pulse to become slower, steadier, and fuller, and often relieves dyspnoea to a wonderful degree. The author does not believe that it is ever called for in aortic disease or in mitral regurgitation. A small venesection often temporarily relieves the distress from pressure effects in aortic aneurysm. In convulsions, associated with increased arterial tension, venesection is the best of all treatments; and this is equally true of convulsions uræmic and proceeding from other causes. In apoplexy, with great cyanosis and stertor, without failure of the pulse, venesection often does good and is without danger.

THE MULLEIN PLANT IN THE TREATMENT OF PULMONARY CONSUMPTION.—The *Verbascum thapsus*, or great mullein, has long been a popular remedy for phthisis in Ireland. It does not appear in the Pharmacopœia, but can be obtained at many good pharmacies. Old writers refer to it as a remedy for diarrhoea. It is prepared by boiling an ounce of the dried leaves in a pint of milk for ten minutes, and then straining. This strained fluid is given to the patient while still warm, sugar being added if desired. It is administered twice a day; the taste of the mixture is bland, mucilaginous, and not disagreeable. Dr. Quinlan ("Brit. Med. Jour.," Jan. 27, 1883) has tried the remedy in seven cases of phthisis in St. Vincent's Hospital, Dublin, with the following results: It soothed the cough to such an extent that patients who were taking it no longer needed their cough mixtures; and it unquestionably relieved the diarrhoea from which some were suffering. This last effect was not due merely to the boiled milk, as was proved by experiment. The mullein relieved dyspnoea, and was mildly stimulating and comforting. It had no effect upon night sweats, and did not seem to check loss of weight in febrile cases. The author is inclined to admit its value as a remedy in phthisis.

THE USE OF CALX SULPHURATA IN CUTANEOUS AND OTHER DISEASES.—Dr. Piffard ("Jour. of Cutaneous and Venereal Diseases," Jan., 1883) states that calx sulphurata (commonly called sulphide of calcium) was first used by the allopaths as an antidote to mercurial salivation. The homœopaths use it as a remedy against suppuration under the name *hepar sulphuris calcarea*. About ten years ago it was brought prominently into notice by Ringer as a remedy in *furunculosis*. He stated that it improved the quality of pus, hastened maturation, and prevented the formation of fresh boils. In carbuncles, also, Ringer believes it to be useful, melting the core to healthy pus, and so quickly expelling the dead and otherwise slow-separating tissue. The dose prescribed by him was $\frac{1}{16}$ grain every hour or two. Cane

has recommended the same remedy in acne. In acute pustular forms, the drug should be given in small doses, $\frac{1}{16}$ to $\frac{1}{8}$ of a grain; in more indolent forms, $\frac{1}{2}$ or even $\frac{1}{4}$ grain should be given until pustulation is induced. The remedy should then be stopped. Dr. Piffard has used the sulphide of calcium with good results in some cases of pustular eczema. He further mentions one case in which glycosuria disappeared while the patient was being treated with sulphide of calcium for eczema. This is of interest as supporting the assertion of Dr. N. C. Husted, that he himself was cured of glycosuria while taking sulphide of calcium for a boil. Dr. Husted has since reported other cases of recovery like his own. In strumous swellings of the upper lip and *alæ nasi*, sulphide of calcium is an efficient remedy. As regards the physiological action of *calx sulphurata*, as the author prefers to call it, we know little or nothing; he inclines to the view, however, that it is a *resolvent* or *aplastic* of great energy, endowed with powers similar to those which have been attributed to mercury. It is probable that it exercises a beneficial influence over the progress of inflammatory exudations, chronic infiltrations, and even, perhaps, some forms of neoplasm.

THE PHYSIOLOGICAL ACTION OF CONVALLARIA MAJALIS.—After a series of experiments with *convallaria majalis* upon rabbits and frogs, Dr. Isaac Ott ("Arch. of Med.," Feb., 1883) formulates his conclusions as follows: 1. That *convallaria* increases the arterial tension greatly at the same time that the heart begins to beat more frequently; that the heart begins to fall before the tension. 2. The decrease of cardiac frequency is not due to excitation of the inhibitory apparatus, but rather to an action upon the heart itself, probably its muscular structure. 3. The rise of arterial tension is still present after section of the spinal cord high up; it is therefore mainly due to stimulation of other vaso-motor apparatus than the main monarchical vaso-motor center in the medulla. 4. The drug causes clonic spasms. If we compare the action of this drug with that of digitalis, we find that the slowing of the heart is due to different causes; with digitalis it is due to cardio-inhibitory excitation; with *convallaria* some other part of the heart is influenced. Digitalis does not primarily accelerate the heart; *convallaria* does. After section of the spinal cord, digitalis does not increase arterial tension; *convallaria* does. The great rise in arterial tension caused by *convallaria* would indicate its value in dropsies. Experiments on animals seem to show that it is a drug which should not be pushed to any great extent.

BLOODLETTING AND PERITONEAL TRANSFUSION IN THE TREATMENT OF RABIES.—Dr. Frigerio, in a paper upon hydrophobia ("Gazz. degli Ospitali," Feb. 25, 1883) details a *post-mortem* held in a case which terminated fatally without the convulsions having been in the least controlled by the heroic use of chloral. The author believes that the poison of rabies is a ferment which acts destructively upon the blood, and proposes as a remedy, which has not yet been tried, copious venesection followed by injection of blood into the peritoneal cavity (peritoneal transfusion). The author's argument is based upon the fact that some cures of hydrophobia treated by bloodletting have been reported, and upon his belief that the disease is caused by a fermentative process in the blood. On like grounds he might with equal propriety urge the same heroic treatment in almost any one of the essential fevers!

CHINOLINE IN THE TREATMENT OF DIPHTHERIA.—Dr. Seifert ("Berl. klin. Woch.," No. 22, 1883) describes a series of cases, slight and severe, in both children and adults, which were treated with this remedy. The only death occurred in the case of a child a year and a half old, sickly with constitutional syphilis. Seifert employs a five-per-cent. solution of pure chinoline in equal parts of alcohol and water as a local application, and a one-fifth-per-cent. solution in water, with a little spirit

and peppermint, as a gargle. The pure chinoline is less disagreeable than the tartrate used hitherto. The local applications are made as often as once in four hours in severe cases; they are followed at first by considerable smarting and burning, but this may be relieved by taking a swallow of water. The throat soon after feels much easier, and the power of deglutition is rapidly restored. The patches rapidly separate, and the glandular swelling soon subsides. The author is a strong believer in the local nature of diphtheria, and employs no further treatment beyond an ice cravat in bad cases.

ADONIS VERNALIS IN RENAL AND CARDIAC DROPSIES.—Dr. Bubnow, of St. Petersburg ("Lancet," Jan. 6, 1883), describes *Adonis vernalis*, a popular remedy in Russia for renal and cardiac dropsies. Under its influence, in cases of dropsy, the cardiac contractions increased in force and diminished in frequency, the urine was augmented and no longer contained casts or albumin. Experiments on both cold-blooded and warm-blooded animals with different preparations of adonis (infusions, and both aqueous and alcoholic extracts) showed that its action is to stimulate both the motor ganglia and the inhibitory apparatus of the heart, and to raise arterial tension. Dr. Bubnow prefers adonis to digitalis, and states that, like *Convallaria maialis*, it has no cumulative action. A glucoside, *adonidin*, containing the active principle of adonis, has been isolated by Cervello ("Archiv für exp. Path. und Pharmak.," 1882, p. 335). The effects of *adonidin* are very similar to those of digitalin. It is not improbable that the same similarity may prove to exist between adonis and digitalis as exists between hyoscyamus and belladonna.

Miscellany.

THE USE OF ANÆSTHETICS DURING LABOR.—In a recent number of the "British Medical Journal" Dr. T. D. Savill indicates what he believes to be the main precautions, the observations of which would render the use of chloroform perfectly justifiable. 1. There are certain women who have a tendency to flood at every confinement, and others in whom there seems an already too great relaxation of fiber—weak anæmic females in their eighth or tenth confinement; and to these it would be unadvisable to give chloroform, except for necessity. Happily, it is not these women who suffer the most pain, but rather those strong, healthy primiparæ whose pelves and general build approximate to the masculine type. 2. We should not give it when labor is complicated with severe vomiting, or with acute heart or lung disease, unless there is imperative call for it. 3. It should not be given to the full extent, except for operation, convulsions, or spasm of the cervix; and then it is necessary that one person should devote his entire attention to it. 4. The inhalation should be stopped directly we find the pulse becoming very weak, or the respiration irregular. 5. Anything which makes us suspect a fatty or enfeebled cardiac wall should make us cautious in the use of chloroform. Here, as in cases other than those of labor, it is not the most extensive valvular disease (so long as it is attended with compensating hypertrophy), but the atrophied or degenerate wall that constitutes the source of danger. Unfortunately, the signs of these conditions are subtle and uncertain. Fatty heart may be suspected by an exceedingly feeble cardiac impulse, combined with an almost inaudible first sound; or attacks of dyspnoea, vertigo, and syncope, in the absence of anæmia or valvular lesion; or the copious deposit of fat in other parts of the body, and the occurrence of dropsy without adequate cause. A dilated heart may be suspected by increased area of præcordial dullness, combined with epigastric and venous pulsation, and a want of correspondence between the violence of the cardiac impulse and the strength of the pulse. Pericardial adhesions also form a great source of danger. They may be suspected when the heart's apex is fixed above its normal position, and does not shift

with respiration; or when there is depression instead of protrusion of intercostal spaces over the position of the apex, giving a wavy character to the cardiac impulse. 6. In all cases we should take particular care to prevent the occurrence of hæmorrhage after birth by giving a full dose of ergot when the head reaches the perinæum, by ceasing the chloroform immediately it is born, and by rousing the patient from her lethargy as soon as possible.

A SPINA BIFIDA PRESENTATION.—Mr. Charles Penruddock, M. R. C. S., of Winchcombe, writes to the "British Medical Journal": On April 15, 1883, I was called by the midwife to attend Mrs. B., who was in labor with her fourth child. Labor commenced at 2 P. M. on the previous day; the pains had been very severe until 10 P. M., but after that time became few and far between, and of very little force. When I saw Mrs. B., the pains appeared to be moderately strong but of short duration. There had been nothing abnormal in her previous confinements. On making an examination, it was with great difficulty that I could reach the os, which I found nearly fully dilated; its margins were rather flaccid, and during a "pain" the presenting portion of the child exerted no pressure on them whatever. From what I could feel of the presentation, I at first thought I had a face to deal with, there being something which very closely resembled the well-defined margins of the orbits; beyond this I thought I felt the nose, and still a little farther on my fingers slipped into what I at once took to be a mouth, only it was somewhat jagged inside, as though it were lined with fully developed teeth; I then came across a hand. I passed my hand into the vagina to make a more thorough examination, satisfied myself it was not the face, and at the same time could feel the unmistakable smooth outline of a child's hip, but, owing to the irregularities, I was unable to tell clearly what the arrangement of parts could be, and decided to call in my friend and colleague, Mr. William Cox. We came to the conclusion that it was no face, but the lumbar region that presented, and therefore decided to turn. This was accomplished in the usual way, and the feet brought down, only slight difficulty being experienced until the head was being extracted, but, with my left forefinger in the child's mouth and my right hand on its occiput, this was soon overcome. The placenta soon followed, and the mother made a good and rapid recovery. The child, a female, appeared to have been dead about twelve hours, and was fully developed. The head was somewhat hydrocephalic. On further examining the body, we found the cause of our not being able to clearly diagnosticate the presentation to be a large spina bifida situated in the middle of the lumbar region, and very much resembling to the touch the part for which I had at first mistaken it. This case struck me as being very interesting in showing how a diseased condition of a fetus may confound the diagnosis of the accoucheur.

SYPHILIS IN THE NINTH CENTURY.—"Between the years A. D. 806 and 810," says the "British Medical Journal," "an emperor of Japan commanded his court physicians, Abemamas and Idzumo Kirotsada, to collect in one volume all extant records of native medicine and surgery. A manuscript copy of this work, for centuries forgotten, although the facts of its origin were recorded in Japanese history, was found in 1827 by a priest, in a provincial Buddhist temple. Dr. Scheube, of Leipzig, has recently examined this work, and, in an article published in a recent number of Virchow's 'Archiv,' has shown its undoubted authenticity and its high value from a purely scientific point of view. It was written long before Chinese ideas had penetrated into Japan and influenced native practitioners. The most interesting passages are descriptions of local and general affections, which clearly prove that syphilis, and several allied disorders, were well known to the ancient Japanese. Chancroid and phagedenic chancre are clearly described, as well as a 'swelling on the penis, of the size of a millet-seed,' followed by eruptions, feverishness, pains in the bones and head, blindness, swelling of the testicles, and other very familiar symptoms. These were observed to continue for many years. The passages of this work, called the Daidorui Thiu-ho, which relate to the treatment of these symptoms have not yet been translated into English. Herbs alone appear to have been used, and without much success; mercurial treatment was introduced at a comparatively recent date, from Europe. The ancient Japanese surgeons do not appear to have recognized the

venereal origin of the disease which they describe, although the Daidorui distinctly traces all the secondary symptoms to 'the poison from the affected organ.' "

OIL OF TURPENTINE smeared upon the hands has been found an excellent preventive of septic infection in autopsies.

PRECAUTIONS AGAINST THE CONTAGIOUS DISEASES OF DOMESTIC ANIMALS.—By a recent amendment of the New Jersey statutes, all persons, who shall own or have in their possession any poultry or animals of any kind which may come to their death from any contagious disease, shall within twenty-four hours after such death bury the carcass in not less than two feet of earth.—*Sanitary News.*

THE AMERICAN NEUROLOGICAL ASSOCIATION.—The ninth annual meeting will be held at the Academy of Medicine, 12 West Thirty-first Street, New York, on Wednesday, Thursday, and Friday of next week. We are asked to give notice that members of the profession are invited to attend the sessions.

The programme is as follows:

WEDNESDAY, JUNE 20TH.—*Afternoon Session at 2.30 o'clock.*—Roll-call, and introduction of the president-elect, by the secretary. Address by the president, Dr. Robert T. Edes. Reports of Council, of secretary, and treasurer. Scientific communications: (1) Dr. W. J. Morton, of New York—Neuritis following Dislocation. (2) Dr. C. L. Dana, of New York—Note on Hydrobromic Acid as a Substitute for the Bromides. (3) Dr. T. A. McBride, of New York—Migraine; its Pathology and Localization.

Evening Session at 8.30 o'clock.—Scientific communications: (4) Dr. C. K. Mills, of Philadelphia—A Case of Locomotor Ataxia terminating as General Paralysis of the Insane. (5) Dr. E. C. Spitzka, of New York—Remarks on the Alleged Relation of Speech Disturbance and the Patellar Tendon Reflex in Paretic Dementia.

THURSDAY, JUNE 21ST.—*Afternoon Session at 2.30 o'clock.*—Scientific communications: (6) Dr. Robert T. Edes, of Boston—The Excretion of Phosphites and Phosphorus as Connected with Mental Labor. (7) Dr. R. W. Amidon, of New York—A Case of Tetanoid Pseudo-Paraplegia, of interest from an Etiological and Pathological Point of View. (8) Dr. W. J. Morton, of New York—An Apparatus for Treating Scrivener's Palsy. (9) Dr. E. C. Seguin, of New York—The Insane of Spain and their Asylums. A communication by letter.

There will be no evening session on this day, and in lieu thereof Dr. R. W. Amidon will give a reception and dinner to the president at Delmonico's at 7 P. M. The members of the association are hereby respectfully invited to attend.

FRIDAY, JUNE 22D.—*Afternoon Session at 2.30 o'clock.*—Scientific communications: (10) Dr. Burt G. Wilder, of Ithaca—The Brain of the Cat, Lacking the Callosum. On the Alleged Homology of the Carnivora Fissura Cruciate with the Primat Fissura Centralis. (11) Dr. E. C. Spitzka, of New York—Lesion of the Stratum Intermedium, with Remarks on the Anatomy and Physiology of that Tract, Illustrated by Specimens. (12) Dr. W. J. Morton, of New York—On the Treatment of Migraine.

Evening Session at 8.30 o'clock.—Scientific communications: (13) Dr. C. L. Dana, of New York—Note on the Treatment of Chorea by the Sedative Galvanization of the Brain. (14) Dr. Burt G. Wilder, of Ithaca—On the Removal and Preservation of the Human Brain. On Some Points in the Anatomy of the Human Brain.

THE NEW HAMPSHIRE STATE MEDICAL SOCIETY.—At the ninety-third annual meeting, to be held in Concord on the 19th inst., it is expected that papers will be read by Dr. Hatch, of Wilton; Dr. Stillings and Dr. Watson, of Concord; Dr. Smith, of Hanover; Dr. Blaisdell, of Contoocook; Dr. Pray and Dr. Stackpole, of Dover; and Dr. Adams, of Manchester.

THE LONG ISLAND COLLEGE HOSPITAL ALUMNI ASSOCIATION.—The third annual dinner will be given at the Brighton Beach Hotel, on Monday, the 18th inst., at 5.30 P. M.

THE MINNESOTA COLLEGE HOSPITAL LECTURES ON HYGIENE.—We understand that Dr. George H. Rohé, Professor of Dermatology and Hygiene in the College of Physicians and Surgeons of Baltimore, has

been engaged to give a course of lectures on hygiene at the Minnesota College Hospital, occupying one hour daily from October 22d to November 3d, inclusive. We congratulate the faculty on their enterprise and on the wisdom shown in the choice of Dr. Rohé. The lectures will be open to the profession of the State.

THE PENNSYLVANIA ANATOMY BILL has become a law, practically with but little change from the original draft.

THE NEW HEALTH COMMISSIONER.—Since our last issue the Mayor has nominated General Alexander Shaler to succeed Professor Chandler in the Board of Health, and on Wednesday the nomination was confirmed by the Board of Aldermen.

THE TEWKESBURY ALMSHOUSE.—Dr. C. Irving Fisher has been appointed resident physician.

WOMEN PHYSICIANS IN MASSACHUSETTS.—At the recent meeting of the Massachusetts Medical Society there was one lady physician present. Women as yet are not admitted to the rights and privileges of the society, but it appears that the majority of the male physicians of the State are willing that women should be recognized. In a circular recently sent out to members, among other questions, this one was asked: "Do you favor the admission of women to the society on the same terms with the men?" Of a total membership of 1,343, 1,132 answered the question, of whom 706 said "yes," 400 "no," while 23 were indifferent. Three hundred and thirty-six physicians stated that they had consulted with female practitioners, 684, out of 1,020 who answered the query of the circular, said they had not, but 931 expressed a willingness to consult with them, as against 146 who, on account of their sex, would not.

BODY-SNATCHING IN SYRACUSE.—Several persons are said to have been indicted recently in Syracuse, N. Y., for complicity in the desecration of a grave. The charge is that a body was exhumed and taken to the Syracuse University Medical College. A recent graduate and a member of the graduating class are among the accused. We trust that they will be shown to be innocent.

DEATH OF DR. NOAH C. LEVINGS.—Dr. Levings died on Sunday, the 10th inst., at the age of fifty-nine years. He was a graduate of the Medical Department of the University of the City of New York, class of 1844, and a member of the Medical Society of the County of New York.

ARMY INTELLIGENCE.—*Official List of Changes of Stations and Duties of Officers of the Medical Department, United States Army, from June 2, 1883, to June 9, 1883.*—ALEXANDER, CHARLES T., Major and Surgeon. So much of Par. 6, S. O. 82, A. G. O., April 10, 1883, amended to direct that he be relieved from duty at the United States Military Academy, West Point, N. Y., October 1, 1883. Par. 7, S. O. 125, A. G. O., June 1, 1883. ———— MCKEE, J. C., Major and Surgeon. Assigned to duty as Post Surgeon, Presidio of San Francisco, Cal. Par. 2, S. O. 56, Department of California, May 25, 1883. ———— DE LOFFRE, A. A., Captain and Assistant Surgeon. To proceed to Madison Barracks, N. Y., and report to the Post Commander for duty. Par. 2, S. O. 93, Department of the East, June 5, 1883.

SOCIETY MEETINGS FOR THE COMING WEEK.—*Monday, June 18th:* Medico-Chirurgical Society of German Physicians. *Tuesday, June 19th:* New Hampshire State Medical Society (Concord—annual); New York Academy of Medicine (Section in Medicine); Medical Society of the County of Kings, N. Y.; Medical Society of the County of Westchester, N. Y. (White Plains—annual); Ogdensburg Medical Association. *Wednesday, June 20th:* American Neurological Association (New York—annual—first day); Medical Society of the County of New York (Comitia Minora); Medical Society of the County of Alleghany, N. Y. (annual); New Jersey Academy of Medicine (Newark). *Thursday, June 21st:* American Neurological Association (second day). *Friday, June 22d:* American Neurological Association (third day); New York Clinical Society (private); New York Society of German Physicians (private). *Saturday, June 23d:* New York Medical and Surgical Society (private).

Lectures and Addresses.

LECTURES ON
HUMAN AUTOMATISM.

DELIVERED AT THE LOWELL INSTITUTE, BOSTON,

By WILLIAM B. CARPENTER, M.D., LL.D., F.R.S., ETC.

LECTURE V.

(Continued from page 621.)

Passing by, for want of time, many other phenomena of binocular vision which have a very direct bearing on our present inquiry, I shall call your attention to a comparison between our visual perceptions of *near* objects and the perceptive judgments which we form of the sizes and distances of *remote* objects, which have an entirely different basis. In directing our gaze to any distant object, the axes of our eyes are virtually parallel; so that we gain no information from the conjoint use of both which the use of either eye separately is not competent to afford. Hence, we can not, even across a room, distinguish with certainty (unless we move the *head* sufficiently to produce a change of parallax) between an actual solid body and a picture of that body so executed as to convey the effect of solidity by its perspective and its *chiaroscuro*. Probably all of you have had this experience, either in regard to a well-painted scene in a theatre,* or in looking at paintings intended to imitate *relievos*, which they sometimes do with marvelous deceptiveness.

But some of you may have noticed the same effect as produced by paintings—still more by photographs—when looked at from a short distance with *one* eye; and nothing better tests the truthfulness of a perspective representation of different distances than this mode of viewing it. For the parts either of a landscape or of an architectural interior then take up (as it were) their respective positions—provided that the pictorial representation of them is accurate—so as to give a much greater *reality* to the scene than when it is viewed with the two eyes conjointly; and the effect becomes more and more vivid the longer we look at the picture. Now, this fact may seem in contradiction to what I have been saying of the peculiar value of *binocular* vision; but I shall show you that it is in complete accordance with all that has gone before. When you look with both eyes at a photograph that is within eighteen inches or two feet of them, you are *forced* to see that it is a flat surface, unless it represents an object in very low relief. (I have one or two photographs of *relievos* in which the relief is so low that, when I look at them with both eyes at arm's length, I am not altogether sure perceptually, though I am intellectually—as *knowing* it to be so—that their surface is flat.) When, however, you close one eye, you are no longer

obliged to see that the surface is flat; for you can not distinguish the relative distances of different parts without the information supplied by the convergence of the optic axes. Under these circumstances, the suggestions given by the perspective representation, and by the distribution of the lights and shadows, exert their full effect; and I have several photographs as to which, when they are properly lighted (for much depends on the correspondence in direction between the light under which the photograph is viewed and that under which it was taken, so that the shadows of the picture may be such as would be given by a real *relievo* similarly viewed), I would defy almost any one who did not know that he was looking at a flat surface to distinguish them from the actually projecting solids whose aspects they represent.* And, even when such a picture is intellectually known to be a flat surface, we find it as difficult to *see* it flat as to see flatness in the stereoscopic image.

In the one case, as in the other, the perceptive judgment is formed automatically, upon the basis of *the accordance of the sensorial image with that of the actual solids which the mind has trained itself to receive and interpret*; and the reason why photographs usually give this effect better than paintings is because of their greater truthfulness as representations of the appearance of the objects suited to them at the particular moment at which each is taken.

We must now pass from the subject of intuitional perception to that of the automatic succession of the higher intellectual processes; and of these, I think, it will be only necessary for me to bring before you a few illustrations, because every psychologist is perfectly aware that there are uniformities of succession—expressed in the term “laws of thought”—which uniformities constitute the purely automatic operation of (we may say) our brains or our minds, according as we choose to represent the fact in terms of matter or in terms of mind. Some of these uniformities seem to be pretty constant through the whole human race, whereas others will depend upon the particular direction which is taken by the individual mind, in virtue of its original constitution, the educational training it has received, and the special knowledge it has acquired. If we leave our mind free to be acted upon by surrounding impressions only, the successions of thought and feeling may be traced to the succession of those impressions, as we see to be the case with young children; but, on the other hand, when we direct our minds determinately to a particular object of contemplation—whether this be purely intellectual, or excites our artistic and poetic feelings, or acts on our emotional nature—in moving along any of these lines our “training” very much determines the particular ideas and feelings which will successively present themselves. On the other hand, it is assuredly in the power of the *Ego* to fix his attention on the particular mental states which he wishes to follow up; and, by intensifying these, to exclude the rest from his consciousness of this determinate fixation of the atten-

* The completeness of the illusory effect of the dioramic views formerly exhibited in Paris and London was in great measure due to the exactness with which their perspective and *chiaroscuro* were rendered, on the basis of sun-pictures obtained by the Daguerreotype process.

* The best way of making this experiment is to cause the photograph to be viewed through a conical tube having a diaphragm at its farther end of such a size and shape as to exclude the “mount” of the photograph, and limit the vision to the picture itself.

tion upon purely intellectual conceptions. We have an example in the answer which Newton is said to have given to some one who asked him how he had arrived at his wonderful discoveries—"by always thinking about them." And the great naturalist, so recently lost to us, who has left an impress on the thought of the age not less strong or far-reaching than that of Newton, was, in like manner, always pondering over the verification of his grand ideas. Turning from the philosopher to the poet, we find Wordsworth clearly expressing the same truth in the preface to his "Lyrical Ballads," in which he gives an account of his own mental processes. He states that he has made it his habit to fix his attention upon the various aspects of nature, or of human nature, until his feelings have (so to speak) overflowed in poetry; and he says, I think very truly, that all the best poetry, that which is most effective in its appeal to the poetical consciousness of other minds, is that which is the result of this spontaneous overflow. This is clearly the case in musical creation. Every one who has read the life of Mozart will remember that his wonderful musical faculty—trained and directed as it had been, in all the musical learning of that time, by the careful direction given by his father to his study of it—enabled him to produce appropriate music, as it were, "at call." It was simply necessary for him, when he had a work to compose, to think a little about the plan which he should follow—if, for instance, it should be an opera, to settle what should be recitative and what song, what should be solo, duet, trio, quartette, chorus, and so on—for his ideas to flow forth and shape themselves into regular musical forms, so as finally to evolve the complete work.

Of this *selective attention* to particular trains of thought, whose succession has been strictly determined by previous habit, we have a typical example in the higher forms of mathematical research. A mathematician, sitting down to apply his trained ability to the investigation of some particular class of phenomena not as yet brought within the scope of mathematical reasoning, sets himself to consider which among the various methods open to his choice is the one most likely to lead him to the desired result. Choosing, for example, the method of quaternions, or the differential calculus, he brings this to bear upon the problem to be solved, fixing his attention continuously upon it until he either sees his way to the manner of proceeding, or, finding himself unable to make further progress on that line, tries another method. When he has once divined the *mode* in which the problem is to be attacked, the working out of the solution is a matter of simple deductive reasoning. It is well known that among mathematicians of the highest ability there is a very considerable difference in their particular capacity for the solution of puzzling problems. The position of senior wrangler at (our) Cambridge has been often gained by a certain special ability of this kind, which has placed its possessor above a competitor who was his superior in the power of applying the highest mathematics to physical inquiry. This last has been the leading subject of examination for another honor known as the "Smith's prize," and it has frequently happened that the senior wrangler has come out second Smith's prize man, while the

second wrangler has come out first Smith's prize man, showing the existence of two different qualities of mind—the one the purely intellectual capacity to apply mathematical reasoning to the conditions of a known case, the other a sort of divining power more akin to the imagination, which enables its possessor to discern the direction in which the solution is to be obtained. It is the man of *genius* who extends the boundaries of his science, while the man of *talent* utilizes all available material for the building up (so to speak) of his ideal cosmos. But each works by his power of *fixing his attention*—in the one case on the object to be attained (as when Kepler was seeking for the ideal harmonies of the planetary motions), and, on the other, on the successive stages of his constructive work.

Take, again, the phenomena of memory, which are, I think, the most instructive, while the most familiar, of all. We desire to recollect something which we have not at the moment before our minds; we wish to call up, for example, the personality of some one whom we have met, and whose face we recognize without being able to say who he is—that is to say, to connect him with any name or image of his character with which our minds have been previously impressed. We say to ourselves, "We know we ought to recognize such a person," and yet we can not recall the ideational conception that we ought to connect with the sensorial image of him, the association of the former with the latter not having become strong enough by repetition to call it up, as has happened to myself very frequently—indeed, in the last month. We know that we have been introduced to him, we have heard a good deal about him, we have, perhaps, had conversation with him, and yet neither will the name present itself, nor that general recognition of *personality*; that is to say, the concrete resultant of all that has come to our knowledge about him, to which the mention of his name ordinarily leads us. Or, again, I have in my mind some statement of a scientific or historical fact, or, it may be, a line of poetry, or a passage of prose, the original source of which I am sure I have known, and would fain recall. In either of these cases we fix our attention upon these ideas, and spontaneous successions of ideas, which lie (so to speak) in the direction of what we seek, and endeavor, by following up one track after another, to find the idea of which we are sure that we have the "physical trace" only waiting to be got at. And if, after an unsuccessful search, we give it up and let our thoughts take an entirely different direction, it continually happens (perhaps after a night's rest) that the lost idea presents itself to our minds without our being conscious of anything that brought it there. But further experience teaches that this spontaneous reproduction is more likely to occur if, after we have thought of all that seems likely to lead us toward the object of our search, we give up our quest, instead of worrying and fatiguing ourselves by unavailing persistence in it. I remember that when—many years ago—I was talking over this subject with my late friend, Sir Henry Holland (of whose valuable essays on psychological subjects I have already made mention), he read me an interesting letter he had just received from Mr. Edward Everett, with whom he had been very intimate when he

was your minister in London. Mr. Everett, as you know, soon after his return home, became president of Harvard University; and he had written to Sir Henry of a difficulty which was continually occurring to him. Falling, he said, into his old literary associations, he was often desirous of bringing to mind the authorship and context of some passage that was familiar to him, and was much vexed at his inability to do so. In reply, Sir Henry had advised him to do just what I should myself have suggested—namely, not to distress himself at the unreadiness of his memory, but to look upon it as having only rusted from disuse; and, after thinking over all the probable originals of the passage he wanted to trace out, to leave the matter alone, with the expectation that the answer would soon come *of itself*. And the letter which Sir Henry read to me from Mr. Everett was one of warm gratitude for the recommendation, which (he said) he had frequently put in practice with the most satisfactory results.

Now, every one of you, I doubt not, has had experience of this kind in one form or another. No thoughtful person can fail to recognize the fact that these forgotten reminiscences, buried (as it were) somewhere down in the cellars of our minds, where we can not find them by looking for them, turn up of themselves after we have given up the search, the light we have let in upon them having produced their revival, not immediately, but by a train of operations which our search has started. And here we have an instance of pure automatism, proceeding along tracks previously laid down, but first put in action by volitional direction.

This form of automatism, which I believe to have a large share in our mental life, is what I have designated “unconscious cerebration.” I do not attach any importance to the term, provided the fact be recognized that a great deal of what we commonly rank as *mental* work is done *unconsciously*, and, therefore, *automatically*. This has been fully admitted by the purest metaphysicians, Sir William Hamilton for example; and the “philosophy of the unconscious” enters largely into modern German psychology. As English writers, on the other hand, have been accustomed to limit *mental* action to that of which *we are conscious*, and to treat everything *beneath our consciousness* as a function of our bodily organism, I based my designation upon what—as a physiologist—I regard as the material instrument which furnishes the mechanism of the operation; and the term has met with wide acceptance among those modern psychologists who perceive that there is such a constant interaction between the *physical* and the *psychical* in man’s composite nature that neither can be fully discussed to the exclusion of the other.*

* Dr. Alexander Winchell (“Science and Religion,” pp. 125 and 231 of English reprint) appears unable to perceive how entirely consistent is the doctrine I advocate with the fact universally admitted—save by those who hold the doctrine of the complete *duality* of man’s nature, with its corollary of “pre-established harmonies”—that a certain physical change in our sensorial apparatus is the *cause* of that psychical state which we feel as a sensation (see Lecture I), my position being simply that certain physical changes in the cerebrum may take place without our consciousness, which, *when translated into consciousness*, become ideas; and that the resultant ideas may be regarded

I believe it to be in this manner that the “integration of our experiences” is effected—of which I have already spoken as one of the most important and most constant of our psychical processes—what is true of our experiences as to external objects being equally true of our ideational and emotional experiences. Our general conception of almost any subject is built up on a foundation much wider than our conscious thought of it; and our desires and aversions, our likes and dislikes, are generally the resultants of a number of separate impressions which we have not knowingly worked up into distinct judgments. And we often experience a “change of mind” as to what is probably true or untrue, or as to a personal like or dislike, by an unconscious remodeling (as it were) of our fabric of thought. And I hold, with your own Dr. O. Wendell Holmes (whose short essay on “The Mechanism of Thought and Morals” is full of such “resultants”), that creative genius—whether that of the mathematician or the mechanical inventor, the musician or the painter, the sculptor or the poet—always works in this fashion; his original gift, trained by judicious guidance and improved by the teachings of experience, evolving its ideal conceptions in their appropriate forms, as resultants of long successions of processes that have gone on unconsciously to himself, whether in his cerebrum or in his under-soul, seems to me a matter of terminology only.

(To be concluded.)

Original Communications.

ON THE LOCAL USE OF ANTISEPTICS AFTER LABOR AND ABORTION.*

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IN 1870 and 1871, while interne at Bellevue Hospital, I saw much of septicæmia in surgical cases, and something, also, of septicæmia in puerperal cases. Under the teachings of Dr. James R. Wood, I became a believer in carbolic acid, and, by its free use, and by the abolition of all sponges, old rubber cloths, etc., I served a month in the lying-in wards and delivered thirty-six women without a case of puerperal fever. All the women had some rise of temperature, but none over 102° F. at any time. In 1872 I saw Mr. Lister at work in his wards in the infirmary at Edinburgh, became a convert to Listerism, brought back with me the material for carrying out his method, and have used it in private practice since then. I have also used it in all cases of labor, of course modified, but still following the principles and teaching of Lister. In some fifty odd cases, not one had puerperal fever, and, excepting three cases with cracked nipples, only one had a rise of temperature above 100°. It is true that there is nothing unusual in delivering

as being as truly the products of those changes as our sensations are of *their* physical antecedents.

* Read before the Medical Society of the County of New York, May 28, 1883.

fifty women among the better classes without a death or any indications of septicæmia, but to have case after case go through all the stages without any perceptible rise of temperature, no so-called milk fever, and without even the well-known odor of the lying-in room, at least repaid me for my care.

The method is very simple:

1. I make it a rule to examine locally every case some weeks before labor, and to have a trained nurse on hand several days before labor is expected. If there is a leucorrhœa, warm vaginal douches, 1-to-50 sol. acid. carbol., are given twice a day, and in all cases, as soon as the first symptoms of labor begin, the vagina and vulva are thoroughly washed with a solution of carbolic acid.

2. The room is prepared by removing all useless and old stuffy furniture, etc., and everything left is disinfected with a spray of carbolic acid solution; the nurse sees that a large supply of napkins and bed linen is on hand, all of which are carbolized with the spray immediately before being used. The linen is changed every day, and two sets of blankets are aired and used alternately. All instruments and hands used are first washed in sol. (1 to 20) acid. carbol.

3. When labor begins, the spray is set going, and after labor every napkin is carbolized, or carbolized muslin or oakum is used to catch the lochia, and changed, according to the discharge, every hour or two, night and day.

4. Just after labor the parts are thoroughly washed with a 1-to-30 sol. acid. carbol., and vaginal douches are given from two to four times a day. This is kept up faithfully for six or ten days, as required.

5. The test of all this is that at no time should one be able to recognize by the smell an odor such as usually characterizes a lying-in room.

For cases of abortion I have tried to carry out the same practice, and all cases that I attended from the beginning have escaped without fever. Within the past three years I have attended four well-marked cases of septicæmia after abortion.

The following is the history of one of these, taken from a careful record made at the time:

Mrs. M., aged thirty, a vigorous and healthy American, the mother of two children, came to the city from Pennsylvania to be operated upon for laceration of the cervix uteri. The operation was done by a professor of gynecology in November, 1878. In February, 1879, I saw her and treated her for acute cervicitis and endometritis, which she attributed to the operation. The cervix was impassable to the smallest sound. After opening the cervix, in about six weeks I sent her home cured. She was quite well until October next, when she failed to menstruate, and had some symptoms of pregnancy. She consulted a physician; he told her that the uterus was enlarged and inflamed, and needed treatment. Several sponge tents were introduced, with the view of opening the cervix, but the first one was forced out in less than an hour, and the second gave so much pain that she refused to have anything more done, and took the night train for New York.

The next morning, October 27th, while at breakfast in her hotel, after a few pains a profuse and sudden hæmorrhage came on, and a large amount of blood was lost before she reached her room. Dr. G., of the hotel, was called, and at once introduced a tampon of cotton pledgets, and was obliged to renew it in

four or five hours. I saw her at 8 p. m.; she was very thirsty, gave evidence of having lost much blood, had great pain, and was flowing freely. I removed the tampon and put in another. At 10.30 p. m. Dr. Sims saw her with me, and agreed with me that an abortion was imminent. A very firm tampon was again introduced, and sufficient morphine was given to keep her quiet for the night.

October 28th.—The next morning the tampon was removed, and a watery discharge escaped; at 4 p. m. the cervix was dilated to the size of a silver quarter-dollar; as there was no loss of blood, and only slight pain, nothing more was done.

29th, 10 a. m.—On account of increased pains and renewal of the hæmorrhage, it was decided, after consultation, to put in a sponge tent. At 4 p. m. os was well dilated, and, the patient being etherized, the index finger was introduced, and most of the contents of the uterus was turned out, but a part was so adherent that it was necessary to use a curette. Arterial blood gushed out profusely. Very hot water was injected, but the bleeding continued, and it was necessary to tampon both the uterus and vagina. She came out from ether, and did well till the next morning, October 30th, about 5 a. m., when she had a severe chill. At 8.20 tampon was completely removed, and a vaginal injection given. At 9.30 temperature $103\frac{1}{2}^{\circ}$, pulse 110. At 5 p. m. the discharge had ceased, and temperature remained at $103\frac{1}{2}^{\circ}$. The uterus was washed out with a solution of 1 to 40 of carbolic acid, and 10 grains of quinine were given. Every three hours the uterus was washed out in the same way. At 9 a. m. the next day, October 31st, temperature was normal. At 3 p. m. temperature rose to 100° , and discharge ceased. Uterine douches were continued three days, once in three hours, and 10 grains of quinine were given twice a day until November 2d, when temperature was continuously normal.

During the night, about ten hours after the douches were stopped, she had a chill, and at 9 a. m., November 3d, temperature again rose to $103\frac{1}{2}^{\circ}$, when the injections were resumed and given regularly every three hours. 11 p. m. temperature was 99° ; after this she was allowed to sleep till morning. At six she had a chill, and at nine temperature was $103\frac{1}{2}^{\circ}$. The uterine douches were again resumed, and kept up, as before, once in three hours. Quinine was also given, but in smaller doses, and she was carefully fed. As before, in about fourteen hours temperature was $99\frac{1}{2}^{\circ}$; after this the uterus was syringed regularly until November 6th. The temperature remained normal after the first fourteen hours. Again she was allowed to sleep eight hours, but, as before, she awoke with a chill, and the temperature, at 9.20 a. m., November 7th, was $104\frac{1}{2}^{\circ}$. The uterine douches were again begun, and in twelve hours her temperature was normal. After this the douches were given by the watch once in three hours, and were continued day and night for seven consecutive days. She then slept all night and the next day; temperature continued normal, and from this time forward she made a rapid recovery without the least fever. Except during the first four or five days quinine was used only as a tonic; and during the eighteen days she was carefully fed, chiefly on milk and meat-juice. To give a short *résumé*: October 27th, 28th, and 29th, pulse weak and soft, but temperature continuously normal. October 30th, chill, fever, $103\frac{1}{2}^{\circ}$; uterine douches, given once in three hours, brought it down to normal in sixteen hours; douches kept up for twenty-four hours longer, and then stopped for ten hours; again chill, and temperature $103\frac{1}{2}^{\circ}$; douches were resumed, and in fourteen hours temperature again normal. Then, on account of patient being tired, she was allowed to sleep about eight hours; again chill, and temperature $103\frac{1}{2}^{\circ}$; douches resumed as before, and temperature normal in fourteen hours. Douches kept up for full three days, and again, after eight hours' sleep, chill, and temperature rose to $104\frac{1}{2}^{\circ}$; douches again, and in twelve hours temperature was

normal. Douches kept up for seven days, night and day, every three hours, and then patient allowed to sleep ten hours; after this there was no rise of temperature. I used then a gum-elastic catheter, No. 9, attached to Davidson's syringe by a rubber tubing, and, as the uterus was anteverted and sensitive, it was necessary for me to be present in person once in three hours, except at the interval indicated, for two full weeks.

This case taught me a great deal, and since then I have thus far been able to manage all cases that have come directly under my care, with much less trouble and excellent results.

About one year after this, on January 18, 1881, Mr. W. called, and said that his wife was very ill, and that he wished me to take charge of her case. Soon after, Dr. Griswold called to say that he had attended Mrs. W., that she had an abortion at about four months, and was now in a critical condition, with undoubted puerperal fever. I saw her at 3 P. M.; she then had temperature $104\frac{1}{2}^{\circ}$ and pulse 120. At 4 P. M. her temperature was 105° . I then introduced a gum-elastic catheter into the uterus, which was enlarged, soft, and lying backward on the sacrum, attached a Davidson syringe, and injected about 2 qt. solution, 1 to 40, carbolic acid, bringing away considerable clotted blood and broken down *débris*. This I repeated every half-hour. In three hours temperature fell to 102° . At 11 P. M. I introduced the catheter and left it in the uterus, and put a trained nurse in charge, to repeat the douches once every half-hour during the night. No medicine was given by mouth. The next morning temperature was normal, and remained so, only going to 99° in the afternoon. A close watch was kept up for several days, and, as she had no further trouble, in ten days was allowed to go about, and made a good recovery.

Since then I have seen in consultation two other patients, in very much the same condition as the last, and both recovered under the same treatment. That is, after twelve hours of frequent douches, the catheter being left in the uterus, the temperature gradually fell to normal, and did not afterward go above 100° , and the patients recovered without further trouble.

I have come to the conclusion that it is best to consider a uterus after an abortion precisely as surgeons to-day regard a punctured wound, and just as likely to be poisoned and equally dangerous when neglected or badly treated.

1. That septic matter must be excluded with great care, and that antiseptics are of great service in preventing infection.

2. That perfect drainage is just as essential as in a severe contused and punctured wound; that not only versions, and especially flexions, may cause retention of the lochia, but that contraction and swelling of the os internum very frequently is an active cause in preventing a constant and free drainage.

3. That when septicaemia has begun within a reasonable time, say within ten or twelve hours after the first chill or high temperature, almost all cases may be cured by perfecting the drainage, and by washing out the cavity either of the vagina or of the uterus, as the case may be, by frequent douches of a solution of carbolic acid of a strength of from 1 to 40 to 1 to 20, the latter being rarely needed.

4. That general medication, except so far as it keeps up the strength of the patient, has little or no direct effect, and that the washing out with carbolic solution not only re-

moves or renders inert the organisms on the surface of the wound or cavity, but, in all probability, sufficient carbolic acid is absorbed locally into the surrounding tissues to weaken if not stop the active reproduction of the micro-organisms, or the generation of poison associated with them.

It is possible that antiseptics, such as pure carbolic acid or phenol, or mercuric bichloride, may be injected hypodermically to such an extent as to neutralize the bacteria or poison in the blood, without doing serious harm to the patient, or that large quantities of alcohol may antisepticize the blood; but I have never seen this clearly proved.

I am fully aware that many cases very soon reach a stage where neither local nor any other treatment can stay it, such as those where the poison has extended rapidly into the connective tissue, or has been carried a distance from the surface by the lymphatics or the veins, and started a new center of local poison; but I believe that most of these hopeless cases begin as simple cases, and, if treated in time, would never reach a dangerous stage—that is, that time gives the disease power, and may even develop stronger, and, therefore, more dangerous micro-organisms or poisons. I also recognize the fact that there are, probably, several different poisons, and also that the same poison in different tissues may give very different symptoms and results. But we must go back to the fact that the beginning, if not always, is almost always local, and that if we begin early, and continue frequently enough and long enough, to wash the parts with an antiseptic, we can in most cases remove the cause. I also believe that there are micro-organisms that even 1-to-20 solution acid. carbolic. will not destroy, or at least in a short time destroy all the spores and prevent their future reproduction under favorable conditions, but it is pretty well established that the presence of a 1-to-40 solution renders them innocuous, by either killing or weakening those that are produced. It is on this account that I use frequent and long-continued injections.

I do not advise intra-uterine injections in old cases. If the disease is confined to the vagina, apply antiseptics to the vagina, but do it often enough to keep up their influence for at least twelve consecutive hours. Usually, if the disease has lasted for several days, or if the symptoms are dangerous, it would be better not to delay washing out both the uterus and vagina, and do it vigorously and faithfully; and don't be satisfied with a uterine injection two or three times a day, or even once in three hours.

Now, as to whether it is best to keep up continuous irrigation, or to intermit for fifteen minutes or half an hour. I have had such satisfactory results with the latter method that I have never tried the former; but there is this much in favor of the intermitting plan: 1. It is more readily and with greater certainty carried out; 2. It gives the parts, if not the patient, a little rest; 3. If the spores are so difficult to kill, and the bacteria so easily killed or rendered inert, the spores may not hatch or attempt reproduction in a continuous stream, and, therefore, they are longer preserved, while in half-hour intermissions the acid may be absorbed and the spores be induced to develop sufficiently to be killed by the next or a later douche—if we wait even three hours the spores may develop, and new spores be reproduced be-

fore the next douche; 4. By douching at intervals, we can use stronger solutions, with less risk of poisoning with the antiseptic than when the continuous stream is employed. I have very little doubt but that repeated washing out with water would often effect a cure, but it must not be forgotten that water would mechanically displace and remove much of the decomposing matter, and also that pure water, if not destructive to, at least weakens the vitality of, many bacteria.

The late experiments of Koch and others give the mercuric bichloride the first place as an antiseptic, and it may replace carbolic acid in intra-uterine douches.

Now, what should guide us in the use of antiseptics after abortions?

The first symptom is usually a chill or chilly sensation, and stoppage of the lochia, and then a rapid rise of temperature. If, in such a case, on examination, an extensive laceration of the perinæum, or the cervix, or wound of the vagina were found, I would wash out the vagina with a 1 to 20 solution acid. carbol. at first, and after this give a 1 to 50 douche regular every fifteen minutes or half-hour for three or four hours. If the temperature then fell gradually, I would continue the douche in the same way for twelve hours or more; but if, notwithstanding these vaginal douches, the temperature should continue to rise or go up rapidly after lessening for several hours, I would at once begin intra-uterine douches, giving one of 1 to 20, and after this 1 to 50 every half-hour until the temperature fell to normal.

In those cases that I have personally attended, the first douche generally brings away considerable *débris*, and the discharge is often bloody, but it gradually clears up with each douche, until finally it comes away clear; and, when it remains so for several injections, almost invariably the temperature is found normal.

It is important, especially in giving the intra-uterine douche, to be certain that your carbolic acid is pure, and I insist upon having Calvert's No. 1, for my experience is that this is about the best that can be had, and that, with the exception of Déclat's, and one or two German preparations, the carbolic acid sold in the shops will cause decided irritation even in solutions of 1 to 50, and many are to a degree more or less insoluble.

In private practice I have not had a case of septicæmia following labor. Four times I have seen patients with puerperal septicæmia in consultation. In three of these the disease had reached its last stage, two were actually dying, and the third in a hopeless condition. A few douches were given in the latter case, but did no permanent good.

The fourth case was that of a young woman who had been delivered three weeks and had no serious symptoms. She suffered from cystitis and subinvolution, and was in quite an anæmic and feeble state, being still confined to bed.

May 2, 1883.—She had a prolonged chill or chilly sensation in the morning; and when I saw her in the afternoon her pulse was 130 and temperature $104\frac{1}{4}^{\circ}$, and she had the characteristic profuse perspiration and collapsed appearance of septicæmia.

On examination, the uterus was enlarged and soft, the fundus lying backward and sharply flexed at the cervix; the lochia had completely stopped. An intra-uterine douche of solution acid.

carbol., 1 to 30, was given, and a dirty, soft, brown clot and shreddy matter came away with the douche. The douches were kept up at intervals of about half an hour, and in two hours temperature had fallen to $102\frac{1}{2}^{\circ}$, and after eleven douches temperature was found normal. She remained in a feeble state, with a poor pulse, for several days, but her temperature did not again rise above 100° , and now she is going about in good health.

Soon after taking charge of my ward at Bellevue in October last, on account of the other wards of the fourth division being crowded, the following case was admitted and treated, under my instructions, by the house staff:

Rachel Bergowitz; thirty-eight; Poland; married; admitted to Ward 29 October 19, 1882.

Patient was a large, fleshy woman. She had had several children, and had been accustomed to get up and do her housework in three or four days after confinement. Had always been healthy. Examination of the chest and urine showed nothing abnormal.

Four days before admission she had been delivered of what she supposes was a full term child. The labor was a long one, and the child was dead when delivered. The placenta came away a few minutes after delivery. There was no unusual hæmorrhage.

The day before admission she had a chill in the afternoon, and after it felt very weak, and had pain in all her limbs and back. She was admitted about 9 P. M., nearly thirty hours after the first chill. At that time her temperature was 101° , pulse 100, full and soft. A dose of castor-oil and quinine, gr. xv, were given.

Her temperature was $101\frac{3}{4}^{\circ}$ at 10 P. M., and rose steadily through the night, standing at 104° at 8 A. M.

October 20th.—A sponge bath and quinine, gr. xv, were given at 8, and the temperature fell to $103\frac{3}{4}^{\circ}$ at 9 A. M. Up to this time it had been impossible to give intra-uterine douches, the house physician having charge of an ovariectomy case, and being unable to attend the patient.

At 9.30 A. M. an intra-uterine douche was given. A Mercier catheter, No. 12, American scale, was passed to the fundus, and about two quarts of water, carbolyzed 1 to 80 and heated to 110° , were thrown into the uterus. The douche caused no unpleasant symptoms, and the patient enjoyed it, saying that it relieved the pain which she felt in her abdomen.

At 10 A. M., immediately after the douche, her temperature was $\frac{1}{2}^{\circ}$ higher.

Ordered whisky, $\frac{3}{4}$ ss., every hour, and quinine, gr. xv, every four hours.

At 10.15 A. M. she had a severe chill, and at 11 her temperature was $105\frac{1}{4}^{\circ}$. At that time a douche, carbolyzed 1 to 40, was given, and brought away several dark, soft clots. At 12 the temperature was $102\frac{1}{4}^{\circ}$, a fall of 3° . Douches were then given every hour, the temperature falling a little after each douche till 5 P. M., when the temperature was $100\frac{1}{4}^{\circ}$. The patient then complained of the frequent disturbance, and the douches were omitted for about five hours. They were then given every four hours through the night, and the whisky ordered every two hours. At midnight the temperature was $98\frac{3}{4}^{\circ}$.

21st.—At 9 A. M. temperature $98\frac{3}{4}^{\circ}$. Whisky was ordered every three hours, and quinine reduced to gr. v q. 4 h. Vaginal douches were ordered every four hours, and intra-uterine douches if the temperature reached 100° . Two intra-uterine douches were given, both of them being followed by a fall of temperature to $98\frac{3}{4}^{\circ}$.

The patient had a slight diarrhœa during the day, and was given bismuth and opium in small doses. It stopped in the evening.

22d.—An intra-uterine douche was given at 1 A. M., after which the temperature reached 100°. Vaginal douches were continued, the whisky gradually stopped, and the patient was discharged November 5th in good health.

Since then nine cases of undoubted septicæmia after labor have been treated in the fourth medical division, in which, under Dr. H. F. Walker, Dr. W. T. Gillette, and Dr. J. J. Williams's instructions, the house physician used the intra-uterine douche. The histories have been carefully taken and written out by the house physician, Dr. Pardec, who personally carried out the treatment in most of these cases. Seven of the nine patients made good recoveries, and two died. One of these was admitted four days after the first chill, and was in too advanced a stage to prevent further poisoning by intra-uterine douches. In the other fatal case, it was afterward ascertained that a very large clot prevented the douches reaching the uterine cavity for more than twenty-four hours.

My experience with the dangers of intra-uterine injections is limited. In one case where there were symptoms of septicæmia after an operation on the cervix, I saw very great shock immediately follow an intra-uterine injection, but in that case a very small catheter was used; and, when the bed-pan was removed, not an ounce of the pint of carbolic-acid solution was in it, nor had it escaped on the bed, for the catheter undoubtedly entered the Fallopian tube, and the fluid was forced into the abdominal cavity. The patient recovered in eighteen months, after suffering during that time with an extensive pelvic abscess. Not long since, while passing from my special ward in Bellevue through the adjoining medical ward, the house physician, Dr. S. Alexander, asked me to see a patient with puerperal fever who was rapidly sinking. She had been brought in eight hours previously with a very high temperature. He had given one carbolized intra-uterine injection, which was followed by a slight convulsion and a fainting turn. This he attributed to the injection, and he did not think it safe to repeat it. Notwithstanding the use of quinine and other internal remedies, she now appeared to be in a hopeless condition; temperature 105°, pulse 130, with profuse perspiration, etc. I advised him to begin the injections at once and keep them up every half-hour, saying that I supposed the first injection might have such a result as he had described without doing serious harm. The woman rapidly improved under the frequent injections, and made a good recovery.

If a large tube, such as Chamberlain's, is used after the os internum is well contracted, it may hug the tube so closely as to cause the douche to distend the uterine cavity. When the fluid is injected under these or similar conditions, the fluid may be forced through the Fallopian tubes into the peritoneal cavity, or a clot may be forced into a vein or through a sinus and do harm; but if a gum-elastic catheter is used, with a two-and-a-half-inch mark to limit the length introduced into the uterus, and of small enough size to pass very readily, not only will the fluid escape, but it will frequently bring with it large shreds of *débris*, clots, etc. In many cases a somewhat flexible and adaptable tube is better than a glass or other

stiff tube. In those cases where the uterus is flexed or the os firmly contracted, these conditions should be rectified before the injections are given; and where there is imperfect drainage the catheter can be left in the uterus, and cut off, with a piece of soft rubber tubing attached to the end at the vulva, and the lochia caught by a carbolized napkin or dressing.

My object in reading this paper was: 1. To advocate preventive measures by the use of antiseptics in all abortions and lying-in cases for the same reasons as they are used in punctured and other severe wounds where the drainage is, if not imperfect, at least slow. 2. To recommend the frequent and long-continued use of antiseptic injections, when once begun, in cases of puerperal septicæmia, and to make it plain that three or four vaginal or intra-uterine injections given in twenty-four hours are not sufficient to do much good, and are likely to result in the disuse of the best, and in many cases the only means of preventing death from septicæmia. That, even when douches are given once every three hours, the disease may renew itself while the injections are being given or after they are stopped. To maintain that vaginal or intra-uterine douches of carbolic acid of a strength of from 1 to 50 to 1 to 20 will save almost all patients when begun early, and that it will often save in apparently hopeless cases.

I suppose that there are many here to-night who use the injections frequently and until the temperature is normal; but our very best text-books take up most of their space devoted to this subject in showing the danger of intra-uterine injections, and wind up with recommending their use three or four times in twenty-four hours.

THE CLIMATIC TREATMENT OF PULMONARY CONSUMPTION; REPRESENTING THE OPINIONS OF THE PROFESSION IN REFERENCE TO CLIMATOLOGY AND CONSUMPTION.

By J. HILGARD TYNDALE, M. D.,

NEW YORK.

(Continued from page 650.)

2. SEA-COAST.

Equability of temperature.

3. NEAR SEA-COAST (MEDIUM ALTITUDE).

Equability of temperature. Moderate dryness.

CALIFORNIA.

Dr. F. W. Hatch, Sacramento, Cal., in his report on "Relations of the Climate of California to Consumption" (State Board of Health, 1877), very correctly divides the climatic regions of California into:

"1. The coast and the valleys bordering thereon.

"2. The interior valleys, as the Sacramento and San Joaquin.

"3. The Coast Range Mountains.

"4. The Sierra Nevada Mountains."

The following conclusions are reached: "First, that to the majority of invalids seeking a change of climate in consumption, the mountains—preferably the Coast Range—

offer advantages, during the summer and early fall months, superior to those of any portion of the State. Second, that a certain proportion may find the eastern slope of the Coast Range agreeable and beneficial even during the winter season."

Dr. H. S. Orme, Los Angeles, Cal.: "In considering the adaptability of southern California as a health-resort for consumptives, it is always to be kept in mind that it is not a so-called 'sedative' climate, nor, compared with some other States, such as Florida, can it be called a hot climate. Taking Los Angeles as a center, the mean temperature there during 1882, according to the official statistics of the United States Bureau, was 60°. The highest and lowest daily means were 100° and 32°, respectively, but no monthly mean was under 49° or over 71°. Taking equability of temperature, dryness, and elevation as factors in the arrest of consumption, I think they are all to be found in southern California; and though there are few very elevated places as yet established as resorts for invalids, there are localities of such elevation as to secure dryness and purity of atmosphere, for instance along the Sierra Madre Range, say from 800 to 1,800 feet of altitude. Further, it is to be stated that cases requiring a moist atmosphere, or sea-air, can find suitable accommodation at numerous points along the Pacific coast below Point Concepcion; for instance, Santa Barbara, Santa Monica, and San Pedro, in Los Angeles County, and San Diego, in San Diego County. On the whole, all the conditions of climate and points of elevation usually sought for by the consumptive can be found in one or other of the coast or inland health-resorts of southern California. So much for facts. As to my own opinion in regard to the class of patients I should send to a *sedative*, or, on the other hand, to a *sthenic* climate, and in the absence of any experience on the patients' part as a guidance, I should be guided by the peculiar condition and temperament of each patient, and should at first only recommend a more or less sedative or sthenic climate *for trial*, giving the patient such directions that, if he found the climate recommended to him for trial to have a prejudicial effect on his symptoms, he should, under medical advice, find such climatic conditions as should, in a reasonable time, benefit his condition. . . . It is well to observe that our extent of country is so considerable—some of our counties in southern California being as large as some of the Eastern States—that in the course of a day's journey any variety of climate may be experienced. In this county of Los Angeles, with its coastline of over 100 miles, and an average breadth east and west of about 60 miles, and intersected by ranges of mountains, a variety of climates is naturally to be experienced. If there is any objection to be made to the climate in general, it is only on account of the considerable difference between the temperatures of midday and midnight, and perhaps also the fogs, which at times are prevalent."

4. INLAND (MEDIUM ALTITUDE).

a. *Moderate dryness. Moderate equability.*

NORTHEASTERN GEORGIA.

Dr. H. V. M. Miller, Atlanta, Ga.: "My experience, and, I think, all observation, satisfies me that neither cold

nor hot climates, as such, produce or cure consumption. It is a disease of temperate climates, and is infrequent in both Arctic and tropical regions.

"Elevation, say from two to five thousand feet, is the first requisite of the ideal climate for all consumptives, except those in whom the disease is so far advanced as to render them incapable of the necessary increase of lung inflation. For these the mild, equable climate of Florida would probably be better if undue moisture can be avoided. Temperature is not important if it is not accompanied by sudden alternation or strong winds. Colorado has sufficient elevation, but, if I am correctly informed, is liable to the two last objections. Dryness and sunshine are important elements.

"*The southern slope of the Blue Ridge Mountains* is the most perfect climate within my knowledge. It has a general elevation of two or three thousand feet, with more elevated mountain range, rising to five thousand feet. On the southern side of these ranges are many locations sheltered from the north and west winds, with sufficient elevation, pure, dry atmosphere, pure water, genial sunshine, and freedom from malaria, alike suited to a winter or summer residence, except, as above stated, in cases of far-advanced consumption.

"With one small district of this large section I am very familiar; it is the county of Rabun, which you will find in the northeast corner of the map of Georgia. It has had a population of from 2,000 to 6,000 for the last sixty years; during that period, upon most careful inquiry I state, there has not been one single case of consumption. The United States census reports two cases, one a child and one grown person. I am fully satisfied, on personal examination, they were not so. No other district in the United States, I think, can show a like exemption. An isothermal line starting at Boston and crossing the continent would pass through this district, showing its exemption from the exhausting heats of summer and the rigors of winter. To this district I send all patients whom I think amenable to treatment."

b. *Dryness. Moderate equability.*

AIKEN, SOUTH CAROLINA.

Dr. W. H. Geddings: "Aiken is situated in what is known as the Sand Hill Region of South Carolina, a range of hills of moderate elevation, extending through that State and a portion of Georgia. It is about 120 miles from the coast, and far removed from large water-courses. It is some 600 feet above the level of the sea, and sufficiently elevated above the surrounding country to insure perfect drainage and complete exemption from malarial disease. Up to within a comparatively recent date, influenced by the tenets of Broussais regarding the inflammatory nature of phthisis, warmth was considered of paramount importance in the selection of a climate in the treatment of that disease, and consumptives were invariably sent to warm, soft, relaxing climates like that of Cuba and Madeira. It, however, soon became apparent to many that these warm, sedative climates, instead of curing the disease, tended only, in many cases, to hasten the fatal termination, and a violent reaction set in,

which culminated in our own land a few years since in the selection of Minnesota as a winter sanitarium for consumptives.

"As in consumption the heat-producing organ is involved, due allowance must be made in measuring the degree of warmth required for the deficiency of respiratory surface, and no preconceived ideas of the asthenic nature of this disease needing a stimulating climate should cause us to let an anæmic patient freeze amid the snows of an Alpine climate. Without in the least deprecating the value of high mountain sanatoria, it must be acknowledged that there are many cases which are unsuited for such treatment, and in which a tonic, bracing climate, similar to that we are about to describe, is unmistakably indicated. The mean of the six colder months, November to April, which constitute the season of Aiken, is 51.77° , or one degree and a half colder than the far-famed resorts of the Riviera. Of much greater importance, however, are annual and daily fluctuations as indicating the equability of temperature throughout a season. The average daily range of Aiken is 12.65° , a degree of equability seldom met with north of Key West. The following table, compiled from reports on file at the Signal Office at Washington, gives a fair idea of the mean variation in twenty-four hours at Aiken as compared with that at other health-resorts.

HEALTH-RESORTS.	September.	October.	November.	December.	January.	February.	March.
	Deg.	Deg.	Deg.	Deg.	Deg.	Deg.	Deg.
Key West	10.00	8.87	8.43	8.54	8.95	9.83	9.18
San Diego	12.00	12.77	14.30	17.16	12.93	12.67	15.19
Aiken	10.03	17.03	18.26	18.06	12.45	19.14	17.64
Jacksonville	15.00	19.38	15.76	19.22	14.54	18.60	20.32
San Antonio	14.36	25.33	23.15	21.33	22.22	22.05	16.46
St. Paul	19.00	16.41	14.46	17.61	20.09	20.82	19.00
Colorado Springs.	28.50	24.22	27.85	26.98	31.87	24.28	25.22

"It will be seen that, aside from Key West, which is not regarded as a health-resort, Aiken is surpassed by but one station—namely, San Diego, Cal., and may therefore be classed among the most equable on this continent. The mean annual relative humidity at Aiken is 58 per cent., thus ranking it within 3 per cent. of the excessively dry climates as classified by Vivenot. In March, 1881, it was only 40 per cent., and in April, 1879, 50 per cent. These figures prove that Aiken is moderately equable and quite dry—in fact, the driest station east of the Rocky Mountains of which we have any reliable record. As would naturally be expected from the dryness of the atmosphere, the amount of vapor precipitated in the form of dew is relatively insignificant. *Who should go to Aiken?* The climate, being tonic and bracing in its character, is naturally indicated in chronic conditions of asthenic type: 1. *Bronchitis*, with more or less secretion. 2. Consumption in its various stages, except the last one, and all forms except acute tuberculosis and laryngeal phthisis. Persons with marked tendency to consumption (the pre-tubercular state), whether hereditary or acquired, in whom the disease is as yet undeveloped, are likely to be benefited by a residence in Aiken. Aiken is contraindicated in: 1. Laryngeal consumption, the air being too dry. 2. Laryngitis. 3. Bronchitis, when attended with

very tight cough and sparse secretion. Invalids should reach Aiken in time for the superb weather which prevails from the 1st of October to Christmas. The winter proper is very short, commencing usually about the end of December and extending through January and the greater part of February, during which period the air is clear and cold, with occasional frost, and even at this season of the year the cold is never so great or long-continued as to act injuriously upon any except such cases as I have previously mentioned as unfitted for this climate."

5. FAR INLAND (HIGH ALTITUDE).

Dryness; no equability.

COLORADO.

(Eastern slope of Rocky Mountains.)

Dr. Charles Denison, Denver: "My experience, if I date back to my southern journey after pulmonary hæmorrhages, is only ten years, yet it embraces the most active period of an inquisitive mind. It was in the spring of 1873, in San Antonio, Texas, that I first conceived the plan of determining, if possible, the attributes of an *ideal climate* for consumptives. This, in view of the hopes inspired and grand results expected, became an ambition stimulating me to unusual exertion to acquire information.

"The two hundred and two consumptive patients, whose experience in Colorado and New Mexico was the basis of conclusions presented in my report to the International Medical Congress in 1876, have now increased to nearly six hundred, averaging over two examinations each by myself, and covering a combined residence in this section of probably somewhere near fifteen hundred to two thousand years. These patients are scattered from southern New Mexico to southern Wyoming; a few are in the east, in southwestern Texas and southern California, and a considerable number, of course, in their graves.

"I am willing to freely impart the information this experience can furnish in answer to the questions propounded. I wish, however, it were possible for such results to compass the obstacles surrounding this question of climatic relief more thoroughly than they do. By these obstacles I refer to the inherent peculiar difficulties existing at this stage of our knowledge of consumption.

"The *ideal climate* question finally turned out to be a very flexible theme, both as to the ideality of the climate and as to the phases and conditions of disease. It results that it is either impossible or wrong to give *positive* answers to the various questions that may be propounded, without due qualifications as to those phases and conditions of disease. Such qualified answers, perhaps as correct as I can now present, I have already given to nearly all the questions included in the circular in my report to the American Medical Association* in 1879 (see 'Transactions,' vol. xxx, pages 155 to 176), and more generally in my work entitled 'Rocky Mountain Health-Resorts.'†

* "Experience of Consumptives in Colorado and some of the Aero-Hygienics of Elevations above the Sea; with Conclusions."

† "Rocky Mountain Health-Resorts; an Analytical Study of High Altitudes in Relation to the Arrest of Chronic Pulmonary Disease." Second edition, 1881.

"Before answering your queries, allow me to criticise the premises you state, in so far as they are to apply to my records. You state: 'We exclude all third-stage cases (with hectic, recent hæmorrhages, colliquative sweats, or diarrhœa), because we agree that they should remain at home.' And then you make the subdivisions to inquire about (1) superficial inflammatory processes; and (2) *cavities and infiltrations*, by which I infer you *include* some third-stage cases, i. e., 'cavities.' If this inclusion is a proper inference, then I agree with you, for I have seen many third-stage cases (the diagnosis being based upon any excavation) which have done excellently well out here, even though they had had night-sweats, hectic, or somewhat recent hæmorrhages. I have elsewhere observed* that 'the systemic influence of extensive disease in the *first* is often much greater than slight inroads of phthisis in the *third* stage'; and I would exclude as unfavorable for journeying from home: (1) first-stage cases with extensive involvement of lung disease and high fever, or marked evidence of tubercular condition; (2) second-stage cases of like character, and all of the second-stage class with less than half the lung tissue remaining free from active disease, for the condition of *softening* is of ominous import till the extent of that process can be established as limited; and (3) third-stage cases with more than one fourth of the lungs actively involved in disease, or all third-stage cases while in acute conditions or having colliquative sweats or diarrhœa, etc., inheritance, youth, and the female sex being unfavorable modifiers.

(To be concluded.)

AN EXTREMELY COMPLICATED CASE OF CICATRICIAL CONTRACTIONS FROM BURNS.†

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MRS. J. L., widow, aged thirty-two years, admitted into Presbyterian Hospital August 8, 1882.

On the 6th of June, 1881, she was severely burned in her face, hands, and forearms, by an explosion of gunpowder. Two months elapsed after the injury before the burned surfaces had healed. Indurated and prominent cicatricial bands were left upon the lower part of the face, extending from the chin to the ears, more extensive on the left than on the right side. The lobe of the left ear was completely enveloped in cicatricial tissue, a portion of its surface being exposed at the bottom of a deep pocket. The hands were greatly disfigured, and were scarcely of any use to the patient.

Right Hand.—The ring and little fingers were flexed at the metacarpo-phalangeal articulations, and at the articulations between the first and second phalanges. The little finger was thrown in advance of the ring finger, and any

attempt to straighten it was resisted by a firm cicatricial band, extending from the ulnar margin of the finger toward the pisiform bone. The point of the little finger was separated from the palm of the hand only to the extent of two centimetres. The ring finger was also fixed in a flexed position by a very firm cicatricial band on its ulnar margin, binding it to the ulnar margin of the hand, and resisting any effort to extend it beyond an angle of 120°. The index and middle fingers were nearly normal. The first phalanx of the thumb was bent forward at an obtuse angle upon the metacarpal bone, fixed by a cicatricial band passing from the radial margin to the wrist. The last phalanx was bent backward at an angle of 110°. The dorsal surface of the thumb was covered with cicatricial tissue, offering considerable resistance to efforts which were made to straighten the member at the articulation between the first and second phalanges. The integument of the forearm was covered around its whole circumference by moderately firm cicatricial tissue extending on the ulnar side to the vicinity of the elbow. The dorsal surfaces of all the fingers were webbed together, the spaces between the index and middle, and middle and ring fingers, as low down as the anterior edge of the commissures, and the space between the ring and little finger, nearly as low as the articulation between the first and second phalanges.

Left Hand.—Index and middle fingers are bent backward at the articulation between first and second phalanges, and firmly held in that position by strong bands of cicatricial tissue. The ring finger is flexed, almost at a right angle, at the articulation between the first and second phalanges, and fixed in that position by two nearly parallel cicatricial bands of considerable thickness. The little finger is flexed at an angle of 75° at the articulation between the first and second phalanges, and is firmly fixed by a dense mass of cicatricial tissue which occupies the whole space of the integument between the first and second phalanges, binding the whole of the middle phalanx to the palm of the hand. The first phalanx is bent far backward. The whole integument of the hand presents a cicatricial character. This condition extends upon the forearm, three or four centimetres above the wrist. The thumb presents a condition almost identical with that of the right hand. Masses of cicatricial tissue extend across the dorsal surfaces of the commissures of all the fingers, webbing them together more than half way to the articulations between the first and second phalanges.

FIRST OPERATION. August 10th. Right Hand.—Multiple division was made of the cicatricial bands, which fixed the ring and little fingers in a flexed position, and which contracted the palm of the hand. The fingers could then be extended and the tension of the palm relieved. The wounds were washed with carbolic acid, 1 to 20, and dressed with lint, saturated with carbolic oil, $\mathfrak{D}$ ij of carbolic acid to $\mathfrak{z}$ j of olive oil. A dorsal felt splint with digital prolongations was applied, fortified with strips of hoop-iron, one for each finger, the splints extending up nearly to the elbow. Each finger was fixed in an extended position to the corresponding portion of the splint with narrow strips of adhesive plaster. Wider strips of adhesive plaster secured

* Report to the American Medical Association, "Typical Cases of Phthisis, with Results" (in Colorado). "Transactions" for 1877.

† Read before the New York Surgical Society, May 22, 1883.

the splints to the forearm, and a gauze bandage was applied over the whole.

Left Hand.—An operation was performed similar to that on the right hand, except that the distal extremity of the proximal phalanx of the little finger was excised with bone forceps, after having been exposed by a longitudinal incision dividing the skin, the aponeurosis of the extensor tendon, and the periosteum. The dressings were the same as on the other hand.

15th.—The dressings were removed for the first time since the day of the operation. The wounds were washed with carbolic acid, 1 to 40, and dressed as before. They were beginning to granulate, and were free from inflammation.

18th.—Dressed as before; the wounds were in good condition.

25th.—The wounds have been dressed every other day, and passive motion applied to the fingers. The wounds are nearly healed.

September 11th.—The wounds are healed. The splints were left off from the right hand, and from the ring finger of the left hand, to allow passive motion of the fingers.

12th.—Reapplied splints.

16th.—Left off splints again for twenty-four hours.

17th.—As the fingers showed a strong tendency to re-contraction, the splints were again applied.

27th.—Splints removed at 6 A. M., and reapplied at 11.30 A. M.

SECOND OPERATION. *October 4th.*—This was performed to improve the position of the thumbs.

Right Thumb.—A longitudinal incision was made over the dorsal surface of the distal articulation of the thumb, exposing the bone. The distal end of the proximal phalanx was then excised with cutting forceps. Five transverse incisions were made across the longitudinal ones, but not deeper than the cicatricial tissue.

A similar operation was performed on the left thumb. The wounds were dressed in the same manner as after the first operation. The thumbs were brought into a slightly bent position, and secured in that position by dorsal splints of hoop-iron.

10th.—Renewed the dressings.

25th.—Since last date, the dressings have been renewed, and passive motion employed every other day. The wounds are nearly healed.

November 1st.—The distal phalanges of the thumbs are nearly in their normal position, but with some tendency to backward flexion. The metacarpal bones of the thumbs are adducted by strong cicatricial bands on their palmar and dorsal surfaces. The index, middle, and ring fingers of the right hand are nearly normal in position and mobility, while the little finger is maintained in a state of partial flexion and slight adduction by a dense cicatricial band, which extends along the palmar surface and ulnar edge nearly up to the wrist. The ring and little fingers of the left hand are still somewhat flexed at the articulations between the first and second phalanges, while there is some backward flexion at their metacarpo-phalangeal articulations.

THIRD OPERATION. *November 1st.* The cicatricial in-

teguments on the dorsal surfaces of both thumbs were freely divided by a series of oblique incisions intersecting each other at right angles so as to divide the aforesaid cicatricial integuments into a series of parallelograms about seven millimetres in diameter. On the left hand, the cicatricial tissues were also divided on their palmar surface by a series of parallel incisions extending over the radial margin of the thumb. The cicatricial webs uniting the several fingers of the left hand on their dorsal aspect were divided by one longitudinal incision in each interdigital space, and by a number of parallel transverse incisions on the lateral surface of each finger.

On the right hand, similar longitudinal incisions were made through the webs on the dorsal surfaces of the fingers; and nearly parallel with the longitudinal incision on the dorsal surface of the web connecting the dorsal surfaces of the index and middle fingers, a V-shaped incision was made, so as to liberate a triangular flap whose apex pointed upward about three centimetres above the commissure, the base of said flap, including the main longitudinal incision at the commissure. On the outer surface of the integument covering the first phalanx of the little finger and its metacarpal bone twelve transverse incisions were made through the contracted cicatricial tissue, which drew the finger in the direction of adduction and posterior flexion. The usual dressings were applied, but the application of splints was postponed until the next day.

2d.—The dressings were renewed, and splints applied to draw the several parts in the directions opposed to the deformity.

After the first few days, the dressings and splints were renewed every other day, and passive motion employed at each dressing.

FOURTH OPERATION. *December 5th. Right Hand.*—The principal remaining deformities to be overcome were undue approximation of the metacarpal bone of the thumb to that of the index finger, and abnormal flexion of the little finger. To overcome these deformities, free multiple incisions were made through the cicatricial bands occupying the commissure between the thumb and the index finger, and also through the dense band on the palmar surface and ulnar edge of the integument covering the little finger and its metacarpal bone. The thumb and index finger were then widely separated from each other and secured by splints of hoop-iron—one on the radial side of the thumb, and the other on the dorsal surface of the index finger. The little finger was brought into a state of exaggerated extension, and fixed in that position by a band of iron on the dorsal surface. All these splints extended above the middle of the forearm.

Left Hand.—The deformities to be overcome were, as far as concerned the commissure between the thumb and the index finger, the same as on the right side, and a similar operation was performed. The remaining deformity on this side was chiefly a flexed condition of the ring finger, involving the articulations between the first and second and second and third phalanges. This flexion was maintained by a very firm cicatricial band occupying the whole breadth of the palmar surface of the finger. I divided this band

by a number of parallel oblique incisions, downward and outward, intersected by other parallel incisions downward and inward. The finger was then brought into a state of exaggerated extension, and secured by an iron band on its dorsal surface.

December 10th.—The wounds have been dressed every other day. They are in a very good condition.

25th.—The wounds are nearly healed. The parts are maintained in a good position.

FIFTH OPERATION. *January 11, 1883.*—This was performed to relieve the backward traction of both thumbs at their distal articulations. It was similar to the operation performed on the 4th of October. It consisted in the exsection of the distal extremities of the second phalanges, which were exposed by means of free longitudinal incisions on their dorsal surfaces. In addition to the longitudinal incision required for the exsection of the extremities of the phalanges, multiple transverse incisions were made through the cicatricial tissue on each side. The usual dressings were applied to the wound, and the terminal phalanges of the thumbs were fixed in a flexed position by the application of bandages around them and the hands.

SIXTH OPERATION. *February 14th.*—The little finger of the right hand, and the ring and little fingers of the left hand, being flexed at angles of about 135° , multiple incisions were made across their plantar surfaces; the fingers were brought into a state of exaggerated extension, and fixed by means of splints applied to their dorsal surfaces.

SEVENTH OPERATION. *March 26th.*—The right little finger and the left ring and little fingers remaining still abnormally flexed, the operation of February 14th was repeated upon them, and they were again fixed by appropriate splints in a position of exaggerated extension. The left index and middle fingers being bent backward at the articulations between the first and second phalanges, by broad cicatricial bands on their dorsal surfaces, multiple oblique incisions were made, downward and inward, and downward and outward, dividing the bands into rhomboidal segments. These fingers were then bent forward, and secured in a flexed position by bent splints applied along their palmar surfaces.

EIGHTH OPERATION. *April 12th.*—The lobe of the left ear being enveloped in a mass of cicatricial tissue, I made a curved incision around its lower extremity and liberated it from its abnormal attachments, and then, by excising a small portion of the subcutaneous tissues, was able to reunite the integument over its margin, and to secure it by fine sutures. I also brought together and secured by sutures the edges of the wound upon the side of the neck from which the lobe had been liberated.

20th.—I removed the last of the sutures to-day. The margin of the lobe has healed, and the insulation of the lobe from the parts with which it had been incorporated is completely established.

NINTH OPERATION. *26th.*—This was performed for the purpose of improving the position and increasing the mobility of the right little finger, which was still somewhat flexed and considerably adducted, and whose replacement in its normal position was resisted by a very dense cicatricial band along the palmar surface and the ulnar margin of

the little finger, and of the hand. This band had been repeatedly divided, and the parts had been stretched, but, in consequence of the difficulty of applying force advantageously to overcome the adduction, not as much relaxation of the contracted tissue had been obtained as seemed desirable. On the present occasion I made numerous oblique incisions, dividing the cicatricial tissue into small rhomboidal segments, and brought the finger into a state of nearly perfect extension; I also overcame the adduction. But, after making as thorough a division of the cicatricial band as seemed to be advisable, it required some force in the way of traction to maintain the improved position of the finger. I washed the wounds with carbolic acid, 1 to 20, and enveloped the finger in sheet lint, moistened with carbolized oil.

To maintain the improved position of the finger, I resorted to the following method: I first applied an iron splint along the radial side of the index finger and of the forearm, the digital extremity of the splint being bent at an obtuse angle, so as to bring the finger into a state of forced abduction. The middle finger was then secured to the index by a broad strip of adhesive plaster, and in like manner the ring finger was secured to the index and middle fingers. The little finger was then brought into an extended position, and secured by a dorsal splint, and the adduction was overcome by drawing it firmly out and binding it to the other fingers by a broad strip of adhesive plaster. A gauze bandage was then firmly applied around the hand and forearm. The fixation of the index, middle, and ring fingers in a position of abduction seemed to be indispensable, as a means of overcoming the obstinate adduction of the little finger. It was an evil, but appeared to me to be an unavoidable one.

May 22d.—The treatment last described was continued, with some modifications, until the 17th inst., when the iron splints were discontinued and wooden splints were applied to the dorsal surfaces of the forearms and hands, secured by roller bandages. This change was made as a matter of convenience, the fingers having been brought nearly into their normal position, and but little active force being required to keep them in place.

The treatment of this obstinate case has been brought nearly to a close. The hands will require the support of bandages and splints for some time to come, and the persevering use of passive motion will be required to restore mobility to the fingers. The result of the treatment is not perfect, but, considering the difficulties of the case, it has been as satisfactory as might reasonably have been expected.

In reviewing this case, it will be observed that the deformities of the thumbs and fingers produced by the cicatricial contractions were of a very complicated character, owing to the fact that the hands had been severely burned both on their palmar and dorsal surfaces, and that the proximal and distal phalanges of the same member had been drawn in the opposite directions of flexion and extension.

In consequence of these complications, it was a very difficult matter to apply force in such a manner as to overcome deformity in one direction without increasing it in another.

In the course of the treatment, it became necessary, in several instances, to repeat the operation upon the same parts which had already been operated on, as the tissues which had been divided had reunited so as still to offer strong resistance to forces tending to overcome the deformity. And in each instance some benefit was derived from the repeated division of the cicatricial bands. If the deformity had been only in the direction of flexion, or only of extension, the problem would have been much simpler, and better results could have been obtained in a much shorter time.

Each operation was performed while the patient was under the anæsthetic influence of ether, and the repeated etherizations were well borne by the patient. No considerable amount of inflammation followed any of the operations. There was no sloughing at any time of even the most minute portion of the divided tissues, although in a number of instances cicatricial bands were divided into small segments. The divided parts began to assume a healing character within a very few days after each operation, and in most instances the healing process was complete within two or three weeks.

After each removal of the splints, before reapplying them, passive motion was freely employed. This often occasioned a considerable degree of pain, which, however, soon subsided after the reapplication of the splints.

Occasionally, when one or more of the fingers had been kept for many days forcibly stretched in a direction opposite to that of the original deformity, it seemed disposed to become rigidly fixed in the position in which it had been held. In such cases the splints were left off for a day or two, with directions to make free use of passive motion. But very soon there was a tendency to a return of the old deformity, and it became necessary to reapply the splints, and in some instances to redivide the cicatricial bands. These changes in the details of the treatment seemed to be necessary to prevent rigidity and to overcome deformity.

The treatment of a complicated case of cicatricial contractions, like the one which has been described, must necessarily be extended over a long time. The contracted parts must be very freely divided at many points through the whole thickness of the cicatricial tissue, and the parts must then be stretched as far as possible in a direction opposite to that of the deformity, and maintained in that position during the healing of the wounds and for a long time afterward. By perseverance in this course for a sufficiently long period, paying constant attention to the most minute details of the treatment, the case may be conducted to a successful issue. And, if the patient be careful to practice active and passive movements of the affected parts to a sufficient degree, the tendency to a recurrence of the deformity, and of the rigidity of the parts, will be finally overcome.

CELLULOID CATHETERS.—A correspondent of the "British Medical Journal" relates the fact that a patient of his broke one of these catheters after having used it only a few times. He considers them "safe only in the hands of skilled persons."

SEIDLITZ POWDERS are quite efficient if taken after the disagreeable coming has ceased.

Correspondence.

LETTER FROM BUFFALO.

The Late Meeting of the Medical Society of the County of Erie.—A State Examining Board.—The Question of the Codes.—Quackery.—The Prosperity of Doctors.—The Sanitary Condition of the General Hospital.—County Post-mortem Examiners.—Small-pox.

BUFFALO, June 13, 1883.

THE advent of summer has lessened a little of the interest in the various medical societies of the city; and yet it was contrived to have a very exciting time at the Erie County Medical Society, which met yesterday. There was an unusual attendance at the morning session, some sixty of the members being present. After an *entrée* of fresh code (a slippery kind of fish), which was washed down with spiey remarks and a few bottles of sour wine, the banquet was continued as follows: Some one proposed that the society should pass a resolution favoring the establishment of a mixed State Board of Examiners. This was a signal for a skirmish. The elders of the profession were against the word "mixed," and the younger in favor. The vote was called for; the young men were thirty-two, the elder twenty-eight. One of these last then questioned the right of some of the opponents to vote, they not having signed the constitution or paid their fees. Then the secretary poured cold water upon him, by saying no new member in the last fifteen years had signed the constitution. Finally the mixed State board carried the day. The resolutions were as follows:

Resolved, That it is the belief of this society that the present method of training and licensing physicians does not command the entire confidence of the profession or of the people.

Second, That the system of licensing physicians by a State Board of Examiners representing the legally authorized medical profession, as seen in operation during the past six years in the State of Illinois, is a decided improvement upon that now pursued in this State.

Third, That this society hereby indorses the principle seen in the formation of mixed boards of examiners—that is, boards giving in one body *pro rata* representation to all the different schools of legally authorized physicians, and believes that it is through the agency of such boards that the standard of medical education may be most efficiently advanced, the profession most advantageously controlled, and its ranks recruited by the admission only of persons worthy of its high responsibilities.

Fourth, That this society hereby pledges its best ability and endeavor to the cause of securing to the people of this State the services of such a board of examiners.

Fifth, That to this end a committee of seven members be appointed at this meeting, to be known as the Committee on Legislation, and that this committee have full charge of this matter, with power to call special meetings of this society, to confer in the name of this society with other societies and with individuals upon matters germane to this subject, to draw orders upon the treasury of this society in sums not to exceed \$100 for all legitimate expenses incurred in the prosecution of this work, and with such other power as, rightly used, would in its judgment aid to bring about this greatly desired end.

Thus ended "the feast of reason and flow of soul." At the afternoon session there was a corporal's guard, some seven being present. A little, old German doctor, who had tried vainly in the morning to present a paper on the code (!), closely written on over forty pages of legal cap, sang in our ears with the perseverance of a mosquito until he was rewarded. The little man, otherwise very harmless, gentlemanly, and modest, seemed transformed into a perfect fiend in the afternoon, and brandished his enormous roll of manuscript like a troll until we sank into our

chairs despairing. He said it would occupy but twenty minutes. We listened a mortal hour—at the end of which time a motion for adjournment was almost immediately made, and no one waited until it was carried. Most of us prefer now neither to hear nor read anything about the codes. There has been a pandemonium about our ears. It is only when we are held button-holed in a corner by a code-demon that we care to listen—squirming; or when a writer lures us into some Kantian article by beginning, "Here is the whole thing in a nut-shell." There is but one word to be changed in the new code to make it acceptable to all: to put the word "interfere" in the place of "consult"—"a physician may interfere with" any qualified practitioner, instead of he "may consult" with one.

The Committee of Censors of the Erie County Society has made considerable progress in the eradication of quacks. Several have been driven out of the city, to take root in some better-manured soil. One Beyermann leeches, bled, and blistered a young man with consumption into the grave in three weeks, which brought him before the police justice, where he was fined heavily and banished from the city. Clairvoyants who have advertised their coming to the city, on finding out how vigilant the Censors are, have canceled their engagements. There are still, however, a number of quacks in the city, whom, for lack of witnesses, it has been difficult to convict. Since the Governor did not sign the bill which would have legalized our Hamburg Canal College here, and probably have soon led to the distribution gratis of medical diplomas at second-hand clothing stores, the Censors can proceed with their exterminations. An injunction is about to be issued against said Hamburg Canal College, where lectures, by the way, are still going on by the *faculty*, with which name one Brayton and a Canadian named Bonnar are dignified. The position, professionally, of the "faulty" can better be imagined than described when it is stated that it is ostracized by even the homœopathic society.

The growth of Buffalo having been enormous lately, she is constantly adding to her many hundred doctors from all sources—chiefly from New York, Philadelphia, and Canada. Canada being so near, it is no trick at all to come from the farms just across the river to become a doctor in Buffalo, and such as come can easily change their brass to gold—good alchemists are they not?

To tell the truth, however, Buffalo is not a paradise for doctors. It has a reputation for being one of the healthiest places in the Union. Our heavy winds blow away many a pestilence. The young doctor is put to a great deal of strategy and patience in order to succeed. Contrary to what one reads of in other places, and in the "Diary of a Young Physician," the older physicians here are very kind to beginners. I am sure I know of none who would not be glad to give to incipient successors whatever it was utterly impossible for him to keep himself; and this is more than they are reputed to do elsewhere. Those not blessed by these occasional morsels are obliged to make the best of their various talents to gain a livelihood. One can nurse, one write for the daily press, one do surveying or civil engineering, one write short-hand, some get an office after much beer with politicians, some follow sick-looking individuals in the streets to make patients of them, some get their names before the public by being *au fait* with reporters, and some—why, some marry—but this only at the last struggle. It is really surprising how from comparative obscurity one can rise to somewhat of social position and wealth by marriage.

The General Hospital has suffered some losses of late. Sanitarily it can not be said to be in the best condition. Some time last spring a homœopathic doctor sent for one of our regular physicians (from whom I learn these particulars) to see several of his nine children who had diphtheria in its most malignant

form. Four of these died within a day or two, when the whole family was sent to the hospital and isolated in a wooden pavilion. Here I believe three more of the children died. Then the nurse who had charge of these cases contracted the disease and died. Following this, the chief of the training school for nurses, which is connected with the hospital, caught diphtheria, and lay for a week at death's door, but at last rallied. Several nurses, had at the same time sore throat, and one scarlet fever. Finally, Dr. John P. Gray, the senior assistant interne, fell a prey to the destroyer, dying about two weeks ago very suddenly from œdema glottidis, consequent upon the diphtheritic throat affection. The old portion of the General Hospital, containing the medical and surgical wards, was built before the war, and seem, apparently still to contain the contagia emanating from wounded soldiers in war-time. It has been reported, I think, by one of the internes, that sixteen consecutive cases of compound fracture have terminated fatally in these wards, and this in spite of frequent disinfection of the building. It is but fair to say, I presume, that some of these patients died from shock and hæmorrhage. It is a marvel to many that Buffalo, although containing fully one hundred and eighty thousand inhabitants, has no city hospital.

Among the evils of making post-mortem examinations is the danger of blood poisoning. I suppose such cases are quite common. The death of a young Chicago doctor from this cause was recently reported. The junior assistant of the Buffalo General Hospital was poisoned while making an autopsy a few weeks ago, the disease taking on the worst form of pyæmia, and it is said that the young man, Dr. Schofield by name, can not recover. It seems strange that some method is not devised to avoid such risks. The gentleman who lectures on pathology at the medical college tells me the only safeguard is cold water, and plenty of it, while working in such dangerous material.

Speaking of autopsies reminds me that this county appoints two post-mortem examiners yearly. These offices, being purely political, fall into the hands of those young men who can afford to make associates of the worst class of politicians. Some amusement has been excited by one of those doing duty at present as such, because of his post-mortem diagnoses. For instance, he made an extremely careful scrutiny of all the organs in a man found dead, returning as a cause of death "cessation of vital function." Another was reported as "pyæmia"—in a person who died four hours after being run over by the cars. One of the yellow clots found frequently in the heart after death was mistaken by the doctor for fatty degeneration, and the certificate of death made out accordingly. This is on a par with the student who, upon being asked what muscle lay opposite the *corrugator supercilii*, responded the *alligator supercilii*, who invariably spoke of the *Ethiopian* tubes of the uterus, and who described the *tania solium* as a part of the brain in the neighborhood of the ventricles. Is not a State Board of Examiners needed?

Through the spring quite a number of cases of small-pox have been met with in the city, some thirty or more, and their origin has been traced to one of our rag warehouses. Health Physician Phelps has been assiduous in his duties, tracing these cases to their cause, sending the patients immediately to the pest-house, burning their contaminated effects, and vaccinating everybody in their neighborhood, and deserves a compliment for being one of our few good public medical officers.

FEMALE MEDICAL STUDENTS IN PARIS.—According to "Lyon médical," the number of ladies studying medicine in Paris in 1880-'81 was fifty-two, and in 1881-'82 thirty-nine, the latter number including ten French women, eleven English, five American, nine Russian, and one Hungarian, Polish, Roumanian, and Indian, each.

Book Notices.

A Treatise on Insanity in its Medical Relations. By WILLIAM A. HAMMOND, M. D., Surgeon-General United States Army (Retired List), etc. New York: D. Appleton & Co., 1883. Pp. xiii-9 to 767, inclusive.

First Notice.

THAT Dr. Hammond, with no asylum service to draw upon for the clinical basis of a work on insanity, should have been able to produce so masterly a book on that subject is a striking reminder, if any were needed, of the versatility of his talents, of his knowledge of medicine as a whole, and of his possessing a self-reliance bordering on genius. It has not escaped him that the reader's wonder would be raised by so daring an attempt, for he says in his preface: "Finally, the objection may be made that, not being the superintendent of a lunatic asylum, I have no business to set up as an authority on insanity, much less to write a book on the subject." To this objection he opposes, and quite justly, we think, his long career as a lecturer on diseases of the mind and nervous system, and adds: "Though I can not claim to have seen so many cases of insanity as the average superintendent of an asylum with its thousand inmates, I do claim that a single case thoroughly studied is worth more as a lesson than a hundred that are simply looked at, and often from afar off. The medical student who dissects one human body is likely to learn more of anatomy than the janitor who sees hundreds of corpses brought to the dissecting-room." He would have been abundantly justified had he chosen to supplement these remarks by a hint that for several years past he has been known to the profession as a man well versed in psychiatry, and that on that account many difficult and unusual cases of mental alienation must have been brought under his observation as a consultant, so that in reality his opportunities for becoming practically acquainted with the more out-of-the-way aspects of insanity have been ample, while whatever defects there may be in his experience fall mainly under the two heads of a deficiency in the number of ordinary cases observed and of a lack of systematic records of the slow progress of the cases he has seen. The defect first mentioned is scarcely worth mentioning; the second he has been able to make good in great measure by a study of the case-books kept by Dr. R. L. Parsons while he was the superintendent of the City Lunatic Asylum. We can not admit, then, that Dr. Hammond has been presumptuous in the matter of a lack of qualification, but, on the contrary, must give him credit for having acquired the qualification in the face of difficulties that few would have had the courage and the persistence to meet and overcome.

It is only within a comparatively short time that American physicians as a body have displayed any considerable interest in the subject of insanity. For many years Dr. Ray's work was almost the only systematic book of American origin that dealt with that branch of medicine. The times were ripe, therefore, for the appearance of such a treatise as Dr. Hammond has given us, as shown by the almost simultaneous issue of a work by Dr. Stearns, of Hartford, and the promise of a book in the same department by Dr. McLane Hamilton.

Confining ourselves at present to Dr. Hammond's treatise, in this preliminary notice we can only indicate its general scope, reserving a consideration of its individual parts for a subsequent article. The book is divided into four sections, three of which, embracing upward of two hundred and fifty pages, lead up to the subject proper. Section I deals with the general principles of the physiology and pathology of the human mind, including a consid-

eration of the nature and seat of the mind; its perceptive, intellectual, emotional, and volitional actions; the influence of individual mental and physical peculiarities upon its operation; the conditions known as eccentricity, idiosyncrasy, and genius; and the ætiological significance of habit, temperament, constitution, hereditary tendency, age, sex, and race, in relation to insanity. Section II treats of the nature and seat of instinct. Section III is devoted to sleep and dreams. Section IV embraces definitions and descriptions of insanity in general, and of its various forms (classed as perceptive, intellectual, emotional, volitional, compound, and constitutional), with closing chapters on the causes, prognosis, diagnosis, pathology, and treatment of insanity.

General Physiology of Muscles and Nerves. By Dr. I. ROSENTHAL, Professor of Physiology in the University of Erlangen. With seventy-five woodcuts. New York: D. Appleton & Co., 1881. Pp. xv-324. [International Scientific Series.]

THIS little book, though appearing in a popular scientific series, and therefore necessarily limited in its scope, is by no means an elementary treatise. Beginning with an explanation of the simple phenomena of muscular contraction, the author condenses into six chapters our present knowledge of the physiology of that subject. The last nine chapters are devoted to nerve irritability, and are not very easy reading. As the writer descends more deeply into the discussion, we can conceive that the non-scientific reader might be somewhat puzzled. The volume has appended several graphical representations of nerve and muscle contraction. One can not look over the book without feeling how difficult it is for a German to write a scientific primer. He must be exhaustive, or nothing. Perhaps Professor Rosenthal has come as near to being popular as his subject and erudition will allow.

BOOKS AND PAMPHLETS RECEIVED.

Atlas der Gelenkkrankheiten nebst diagnostischen Bemerkungen und einem Abriss der Anatomie der Gelenke. Von Dr. August Schreiber. Mit xxiii theilweise in Farbendruck ausgeführten lithographischen Tafeln und 56 Holzschnitten. Tübingen: H. Laupp, 1883. 4to, pp. viii-100. [Price, 12 M.]

Hand-book of Electro-Therapeutics. By Dr. Wilhelm Erb, Professor in the University of Leipzig. Translated by L. Putzel, M. D., Neurologist to Randall's Island Hospital, etc. With thirty-nine woodcuts. New York: William Wood & Co., 1883. Pp. xi-366. [Wood's Library of Standard Medical Authors.]

Bacteria and the Germ Theory of Disease. Eight Lectures delivered at the Chicago Medical College. By Dr. H. Gradle, Professor of Physiology, Chicago Medical College, etc. Chicago: W. T. Keener, 1883. Pp. 219.

On the Relations of Micro-Organisms to Disease. The Cartwright Lectures, delivered before the Alumni Association of the College of Physicians and Surgeons, New York, February 19, 21, 24, and 27, 1883. By William T. Belfield, M. D., Lecturer on Pathology and on Genito-urinary Diseases (Post-graduate course), Rush Medical College, Chicago. Reprinted from the "Medical Record," February and March, 1883. Chicago: W. T. Keener, 1883. Pp. 131.

State Charities Aid Association. Hand-book for Hospitals. New York: G. P. Putnam's Sons, 1883. Pp. 263. [Price, \$1.]

Gout in its Protean Aspects. By J. Milner Fothergill, M. D., Member of the Royal College of Physicians of London, etc. Detroit: George S. Davis, 1883. Pp. viii-303.

Annual Catalogue of the Albany College of Pharmacy, Department of Pharmacy of Union University, for 1882-'83; and Announcement for the session of 1883-'84.

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THE ALLEGED DANGERS OF SMOKING CIGARETTES.

THE extent to which the cigarette has supplanted the cigar of late years makes the question of the comparative noxiousness of the two a matter of considerable importance to smokers. All sorts of notions in regard to the subject are rife in the community—mostly to the disadvantage of the cigarette. It is said that the flourishing cigar trade of former times has been brought low by the intrusion of the cigarette, on which, the dealers assert, but a trifling profit is made in comparison with what they have been accustomed to realize from the sale of cigars. It is not unlikely, therefore, that some of the perils commonly supposed to attach to the use of cigarettes are ingenious figments inspired by the trade. At least, they are ridiculous enough to have had such an origin.

One of these supposed perils is that arising from the action of deleterious compounds formed by the combustion of the paper wrapper. It is even asserted that the paper used in making many brands of cigarettes contains matter that is poisonous without the intervention of the burning process, and arsenic is usually mentioned in this connection. Were this substance, or any of its compounds, really present, in anything beyond an infinitesimal amount, it is manifest that it would be apt to find its way into the system not only by being dissolved in the saliva, but also by being volatilized and taken into the mouth with the smoke. Such being the case, serious and unmistakable instances of arsenical poisoning would long before this have been traced to cigarettes if there were any truth in the story. Without pretending to have submitted cigarettes to chemical tests for arsenic, we think it may fairly be assumed that the lack of such occurrences as we allude to constitutes respectable negative evidence regarding the presence of that substance. Moreover, the matter has been so much talked about as to make it almost incredible that our zealous sanitarians would not have interfered to stop the sale of such cigarettes before now, had they been able to detect the arsenical contamination.

So far as concerns noxious products of combustion, less is said, and probably there is little to be said. Any effect produced upon the smoker by the empyreumatic substances in question can scarcely be materially different from what would be exerted by compounds of the same order arising from the combustion of almost any organic material destitute of specific properties. Moreover, such effect must be nothing more than local, manifested in the mucous surfaces with which the smoke comes in contact, but in no wise spreading to the general system.

Another allegation is, that cigarettes are sophisticated with some preparation of opium, in order to heighten their action on

the nervous system. If we compare the market value of tobacco with that of opium, we shall not feel inclined to dwell long upon this suggestion, for everybody knows that it does not suit the purposes of the falsifier to adulterate a cheap commodity with one that is expensive.

Coming now to more reasonable objections to the cigarette, it is urged that they encourage more frequent smoking than is common with those who use cigars, and that there is also a great temptation for the cigarette-smoker to inhale the smoke. Concerning the first of these suggestions, it is undoubtedly true, but it should be remembered that it takes a number of cigarettes to equal a cigar in narcotic effect. Cigarettes differ among themselves, of course, and so do cigars, but, taking all sorts into account, the statement will still stand, we think. The cigarette has indeed this advantage, that, being cheap, it is more likely than the cigar to be consumed only in part; and it is the practice of smoking either the one or the other to the very end that seems to be particularly mischievous. During the consumption of the first part the smoke has to make its way through the material intervening between the lighted end and the mouth, whereby a very large proportion of the offensive matter is filtered out from it that would otherwise be carried into the mouth and deposited there. Possibly also some of the nicotine is thus entangled. Now, the shorter the cigar or the cigarette gets to be in the process of smoking, the less of this filtering action takes place.

The practice of inhaling the smoke, *i. e.*, of taking it into the lungs, is undoubtedly more apt to be fallen into by cigarette-smokers than by those who use cigars or a pipe. It can scarcely be doubted that the habit is much more pernicious than ordinary smoking, for thus the smoke comes in contact with a vastly amplified absorbing surface, and, moreover, it is exceedingly probable that some of the matter with which it is laden is deposited in the air passages. We can speak but little more favorably of the practice of blowing the smoke out through the nose, for that, too, exposes an extensive absorbing surface to the smoke.

It appears to us, then, that there is no just ground for looking upon cigarettes, used with proper precautions, as in any way more capable of doing harm than either cigars or pipes.

THE SUMMER SOCIETY MEETINGS.

THE strictly local societies, which, although small in numbers and representing limited sections of the profession, yet do by far the greater part of the scientific society work accomplished in this country, and, indeed, nearly all of it that is of a clinical nature, hold all their meetings in the nine cooler months of the year. During that period the larger colleges are giving their regular lecture courses, and at the hospitals the operative work is brisk. Perhaps it is to these circumstances, quite as much as to the inspiring influence of cool weather, that the activity of the local societies during the term alluded to is to be attributed; for men never feel so much inclined to continuous work as when they have a good deal of it on hand.

No sooner does the season draw to a close, however, than the national and State organizations take up their parable—even somewhat in advance of the cessation of active work by the city societies. Among the larger States, Pennsylvania leads off in May, and Ohio and Massachusetts follow in June. Our own State Medical Society, indeed, holds its meeting in mid-winter, but in this practice it is almost alone. A few years ago a meeting was held in June, and attempts have been made at various times to have a summer meeting made the regular order, but thus far they have not proved successful. There have been two great reasons for these efforts to effect the change—the fact that physicians find it less convenient to leave their business to take care of itself for two or three days at a time in winter than in summer, and the virtual occupation of Albany by the Legislature during the former season. These considerations certainly seem to be of some importance, but, on the other hand, however detrimental it may be to a man's material interests for the time being to break away from them during the busy season, it may be that in the end just that little diversion is what saves him from the necessity of beginning his summer vacation perforce at an earlier date than the requirements of his business warrant. At all events, the February meetings of the State society are usually well attended, and it is hardly likely that a change will be made.

The county societies of this State, most of them, are so far from following the example of the parent organization that the great majority of them hold their annual meeting some time between the middle of May and the middle of July. It is at this season, too, that the national bodies start up into activity. At the approach of summer the American Medical Association, meeting sometimes in May and at other times in June, the American Surgical Association, the American Laryngological Association, and the American Neurological Association convene, while the American Ophthalmological Society and the American Otological Society follow in July, the American Dermatological Association holds its meeting in August, and the American Gynecological Society brings up the rear in September.

A summer meeting seems almost a necessity for these national societies, on account of the great distances that many of their members have to travel in order to attend, occupying time that could scarcely be spared in winter. In regard to those that meet in July and August, however, it must be that they suffer somewhat by the absence of certain of their members from the country; but there seems to be no other objection, inasmuch as they avoid the large cities, and meet at some place of summer resort.

A "MIXED" STATE EXAMINING BOARD.

In a recent issue we favored the establishment of a State examining board for conferring the license to practice, the board to be independent of the teaching bodies. We then said that on a subsequent occasion we should say something as to the best methods of attaining the end in view. It is not our present purpose to give our impressions fully upon the matter, but

there is one particular aspect of it that has lately been made prominent by the action of the Medical Society of the County of Erie in favoring a "mixed" board, as will be seen by the resolutions given in the letter from our Buffalo correspondent.

The broad question of the establishment of State examining boards has had the serious attention of many of the best men in the profession for some time past, and our information in regard to the recent meeting of the American Medical Association is, that, although the matter received little or no open discussion, it was the subject of a good deal of informal talk among the members, many of whom looked upon it as the coming question with the profession. The fear was freely expressed, however, that the proposed measure would meet with the determined opposition of the less reputable of the colleges, as they could not fail to see in its operation the gradual but sure extinction of their prosperity. We do not think that such opposition would prove formidable with legislative bodies, however boldly it might lift its front in professional circles. Legislators are ready enough to take questionable institutions under their wing whenever they think they smell an attempt at persecution, but a proposition looking only to the public welfare, and manifestly divested of sectarianism, they are not likely to smother merely on account of the ulterior disadvantage that it may be expected to work to corporations which, so long as a semblance of persecution can be appealed to, they are fond of coddling.

The action taken at Buffalo seems well calculated to deprive the scheme of anything that can be tortured into a manifestation of sectarianism. We are not prepared to admit, however, that it was necessary to go so far as to advocate a *pro rata* representation of the various sects recognized by the law. It will doubtless be found necessary to have each of the three legalized sects represented by an examiner in therapeutics, but, as to the examiners in the other branches, nothing will be gained for the cause of professional elevation if sentimental considerations are allowed such play as to interfere with the design of making the board perfectly competent and above all temptation to trade votes. Sectarianism in medicine is limited to the narrow field of therapeutics. If we can secure an arrangement by which no man can be admitted to practice medicine in the State unless he proves himself to possess a reasonable knowledge of all the other branches, we may safely leave therapeutics to take care of itself; but, once open the door to incompetence in three or four of the branches into which, for purposes of examination, medicine has to be divided, and reform is defeated. At present, therefore, we must look upon the proposition to create a "mixed" board with only partial approval.

THE NEW HEALTH COMMISSIONER AND THE SANITARY INSPECTORS.

SOME apprehension has been expressed that the new health commissioner was about to display his zeal for the public welfare by insisting that those medical gentlemen who hold the position of sanitary inspector should devote their whole time to the duties of the office, and, consequently, be debarred from

engaging in the practice of medicine. By pursuing this course, General Shaler might perhaps do something toward placating that particular element in the opposition to his confirmation by the Board of Aldermen which, when one of the board had spoken eulogistically of the general, remarking that he had witnessed his demeanor in battle, called forth the taunting query whether it was on a certain twelfth of July, when the walls of the houses were bespattered with the blood of innocent men and women, the aforesaid "innocents" having mustered for the avowed purpose of committing a breach of the peace.

It is not by reason of any increased efficiency on the part of the inspectors in the performance of their duties, however, that General Shaler could at all ingratiate himself with the demagogues by the policy to which we have alluded, but by compelling those of the inspectors who have anything better to look to in the future than the paltry pay allowed them to resign, thus opening fresh fields for the distribution of spoils among a herd of incompetents.

If the new president of the Board of Health thinks it better to play the part of a "boss" than to consult the real interests of the sanitary service of the city, he will insist that the sanitary inspectors shall be inspectors and nothing else. If, on the other hand, he seeks only to promote the efficiency of his department—and this for the present we prefer to believe—he will be perfectly justified in taking all possible means to insure the thorough devotion of the inspectors to their duties, but not in resorting to measures that can only result in the lapse of the offices into the hands of a set of incapables.

MINOR PARAGRAPHS.

THE LONG ISLAND COLLEGE HOSPITAL.

THE third annual dinner of the Alumni Association of the Long Island College Hospital was given at the Hotel Brighton, Coney Island, on Monday, the 18th inst. The large dining-room was well filled, the company including, it was estimated, about one eighth of the alumni. The president, Dr. James Watt, occupied the chair. Dr. W. H. Dudley spoke to the toast of The Long Island College Hospital; Mr. Mead to that of The Regents; Dr. S. G. Armor to that of The Faculty; the Rev. Dr. McClellan to that of The Clergy; Mr. Peters, of the "Eastern District Times," and Mr. Ford, of the "Brooklyn Union," to that of The Press of Brooklyn; Dr. William C. Wile, of Sandy Hook, Conn., editor of the "New England Medical Monthly," Dr. Landon Carter Gray, of the "American Journal of Neurology and Psychiatry," and the editor of this journal, to that of The Medical Press; Dr. J. G. Johnson to that of The Medical Profession of Brooklyn; and Dr. (then Mr.) Pearce to that of The Class of 1883. Among the other speakers called upon were Dr. J. S. Wight, of the faculty; the president of the class of 1883; Dr. Robert Newman, the newly elected president of the association; Dr. Johnson, a colored graduate of the college; and Dr. A. J. C. Skene, of the faculty.

From the remarks of the various speakers it was gathered that the institution had been in existence twenty-four years; that it was one of the first medical colleges in this country, if not the very first, to conduct its teaching under the same roof with a hospital service; and that, of those who came up for the degree of doctor in medicine this year, twenty-five per cent.

were rejected. The colored graduate spoke feelingly, but without bitterness, of his vain efforts to get admission to other colleges, and gratefully of the kindness he had met with at the hands of his alma mater. The clear inference from this pleasant occasion was, that the college was following its career creditably and most successfully.

On Tuesday, the 19th, the annual commencement was held at the Brooklyn Academy of Music. The Rev. Dr. Hall, of the Church of the Holy Trinity, addressed the graduating class, and the degree of doctor in medicine was conferred on the following-named gentlemen:

William Henry Aten,	Samuel Richard Kirkland,
Frank Sheldon Atwell,	Charles Francis Kuhn,
John Wilton Barlow,	John Baine Laidley,
John Henry Bowen,	John Lincoln Macumber,
George Sanford Bowen,	Frank Orlando Manniug,
Augustus Harper Buckmaster,	E. L'Hommedieu McGinnis,
Frank E. Carpenter,	Henri Goulden McGrew,
Lorenzo Bliss Chapinan,	Joseph Merzbach,
Andros Palmer Chesley,	James Allen Nichols,
William Albert Cottle,	Haydn Nichols,
Edward Payson Crowell,	Eugene Frederick Pearce,
Milton Burr Davis,	Charles Page Peterman,
Daniel P. Deming,	Jeremiah Daniel Phelan,
John Nicoll Dimon,	Samuel Howard Phillips,
Garland Ben Foscue,	Francis Ashbel Pomeroy,
Henry Tuthill Hallock,	Archibald Adams Reid,
Frederick Prepu Halton,	August Henry Ritter,
Eugene Franklin Hamburg,	Frank Wheeler Severn,
Patrick Hayden,	Oliver Cotton Smith,
Norman Harvey,	Alfred Burman Smith,
William Vincent Hazeltine,	Franklin G. Steele,
Charles Cincinnati Henry,	Edward Marranse Travers,
Walter Dennis Hough,	John Milton Williams,
Henry Clinton Hood,	Lucius Judson Woodworth,
Frederick Albert Jewett,	Charles Reid Whitcomb,
	Charles William Watt.

THE ST. LOUIS DAIRY COMPANY.

At a recent meeting of the St. Louis Medical Society, of which we find an excellent report in the "Weekly Medical Review," Dr. Coles read a most interesting paper on milk culture, in which he brought forward a number of important facts bearing upon the production of really good milk, and dwelt in a wholesome way upon the importance of milk as an article of food for infants and for invalids.

A point of practical interest in Dr. Coles's paper was, that he announced, and apparently with some confidence, that the St. Louis Dairy Company proposed to furnish pure milk in good condition. We take it that the company is a new organization, and we trust that it will not recede from the policy thus put forward. Certain it is that it is on the vigilance of the large towns that we must depend in this matter, for the bucolic mind still clings to the notion that city people are grossly incompetent judges of milk.

GAILLARD'S MEDICAL JOURNAL AND THE NEW-CODE MEN.

"GAILLARD'S MEDICAL JOURNAL" lately criticised the advocates of the new code severely for professing to act from lofty motives, whereas, it hinted, their mercenary motives were plainly shown by their frantic endeavors to prevent the publication of their names, which publication had been called for by a correspondent of the "Louisville Medical News," in order that Western physicians might know whom to avoid in sending patients to New York for advice and treatment. The article

in "Gaillard's Medical Journal" was headed, "A Strange Inconsistency." We reproduced it in our issue of May 26th, and added that there did appear to be some inconsistency, seeing that the same number of "Gaillard's Medical Journal" contained the list alluded to.

We regret to see that our excellent contemporary falls into the error of supposing that we intended to characterize as an inconsistency its action in publishing the "appeal" of the new-code men in the same issue with its vigorous denunciation of their course. "Such liberality," it justly and courteously adds, "the *New York Medical Journal* should be the last to condemn as it has certainly displayed this proper spirit in its own course." The inconsistency that we really had in mind was that of accusing the new-code men of shrinking from publicity, and at the same time publishing a list of their names, furnished, as everybody knows, by themselves.

THE MEDICO-LEGAL JOURNAL.

We have received the first number of this new quarterly publication, dated June, 1883. It contains the inaugural address of the president of the Medico-Legal Society and a number of other articles of interest. The number contains 118 pages, and makes a creditable appearance, being embellished with an excellent steel-plate likeness of the late Dr. George M. Beard.

NEWS ITEMS.

THE ERIE COUNTY COMMITTEE ON LEGISLATION.—The committee called for by the resolutions lately passed by the Medical Society of the County of Erie, which will be found in our Buffalo letter, consists of Dr. John Hanenstein, Dr. M. D. Mann, Dr. F. S. Crego, Dr. Edward Storek, Dr. A. R. Davidson, Dr. H. R. Hopkins, and Dr. A. H. Briggs.

YELLOW FEVER AND SMALL-POX IN HAVANA.—The National Board of Health is reported to have information that there were eighty-one deaths from yellow fever in Havana during the month of May, of which ten were among private individuals, and the remainder among members of the army and navy in the military hospital. The disease was slowly increasing in Havana, particularly along the wharves, and mercantile vessels moored near the military hospital had been invaded by it. There were also four deaths from small-pox in Havana in May.

TWO TRAVELING QUACKS.—The Mayor of Philadelphia lately received a letter from St. Paul inquiring whether Dr. H. W. Darling and Professor A. Campbell, M. D., were connected with the Philadelphia Dispensary. The letter stated that these two men were traveling through the Western States representing themselves to be the founders of the dispensary. Inquiry at the dispensary showed that no such persons were in any way connected with that institution.

AN HONORARY DEGREE.—Haverford College has conferred the degree of doctor of laws upon Dr. Thomas F. Cock, of New York.

A NEW OBSTETRIC PHYSICIAN TO THE LONDON HOSPITAL.—According to the "Medical Times and Gazette," Dr. G. Ernest Herman has been appointed to this position, and to that of lecturer on midwifery in the school, in place of the late Dr. Palfrey.

A BANQUET IN HONOR OF M. VILLEMIN.—We learn from the "Union médicale" that, at the suggestion of M. Verneuil, a dinner was recently given in Paris in honor of M. Villemin, as a reminder of the credit due him for investigations that first established the infection doctrine of tuberculosis.

Proceedings of Societies.

AMERICAN NEUROLOGICAL ASSOCIATION.

THE ninth annual meeting was held at the hall of the Academy of Medicine, New York, June 20, 21, and 22, 1883.

First Day—Wednesday, June 20th.

The association was called to order at 2.30 P. M. by the retiring President, Dr. WILLIAM A. HAMMOND, of New York, who, in a few well-chosen words, introduced the President-elect, Dr. R. T. EDES, of Boston.

THE PRESIDENT'S ADDRESS.—The PRESIDENT, in his address, said that progress in this department of medicine had related chiefly to cerebral localization. Certain tendencies to error in deduction in neurological study were alluded to, and trustworthy methods of investigation were suggested.

A letter was read from Dr. E. C. SEGUIN, regretting unavoidable absence, and resigning the secretaryship.

The following gentleman were elected members of the association: Dr. L. Weber, of New York; Dr. G. S. Walton, of Boston; and Dr. J. T. Eskridge, of Philadelphia.

Dr. R. W. AMIDON, of New York, was elected secretary *pro tem.*, and then read his annual report.

ELECTION OF OFFICERS.—Officers for the coming year were elected as follows: President, Dr. Isaac Ott, of Easton, Pa.; Vice-President, Dr. W. R. Birdsall, of New York; Secretary and Treasurer, Dr. R. W. Amidon, of New York; Council, Dr. V. P. Gibney and Dr. W. J. Morton, of New York.

THE LATE DR. BEARD.—Dr. C. L. Dana and Dr. C. K. Mills were appointed to draft resolutions in regard to the death of Dr. George M. Beard, of New York.

NEURITIS FOLLOWING DISLOCATION AT THE SHOULDER was the title of a paper read by Dr. W. J. MORTON, of New York. The case referred to was that of a man, sixty-five years of age, who fell and dislocated the right shoulder. The dislocation was reduced at Bellevue Hospital, and the patient was discharged on the second day. The following condition of things was found afterward to exist in the right hand and wrist: Pain and swelling; the skin glazed, mottled, cold, and œdematous; the nails club-shaped; the joints of the limb painful; impairment of motion, neuro-muscular super-excitability. Afterward there was a transfer of these symptoms to the opposite member. The treatment consisted in the application of electricity, a blister over the tract of the brachial plexus, hot and cold douches, and the use of cod-liver oil. Dr. Morton considered the case one of neuritis, commencing in the injured brachial plexus, and ascending to the spinal cord; hence the transfer of symptoms to the left arm. The case, as would readily be recognized, presented several interesting and perhaps unique points. The usual result of neuritis was atrophy of the tissues supplied by the affected centers. He had found record of but a single case in which hyperplasia instead of atrophy had taken place, namely, that of Dr. S. Weir Mitchell. The condition of neuro-muscular super-excitability resembled the lethargic stage of hypnotism, described by Charcot, and the pathogeny there suggested seemed best to meet the present case.

The paper was discussed by Dr. PUTNAM, Dr. MILLS, Dr. GIBNEY, Dr. WEBER, and Dr. HAMMOND. Dr. WEBER, speaking of treatment, had not produced benefit in similar cases from electricity, but had found decided benefit result from blisters.

Dr. HAMMOND advised complete rest of the affected nerves and their centers; and, to accomplish this, he practiced nerve-

stretching. Electricity did harm by excitation. Dr. PUTNAM applied ice.

NOTE ON HYDROBROMIC ACID AS A SUBSTITUTE FOR THE BROMIDES.—This was the title of a paper read by Dr. C. L. DANA, of New York. The dose of the pure acid should be from ten to twenty drops; of the officinal, or the ten-per-cent. solution, one drachm to two drachms and a half. It was usually given in two small doses. During the past two years he had employed hydrobromic acid in the following conditions: Epilepsy, alcoholism, various forms of headache, vertigo, general nervous depression, neurasthenia, chorea, insomnia, hysteria, post-hemiplegic disturbances, etc. He had seen the greatest benefit from the drug in epilepsy, in post-hemiplegic difficulties, and in other lighter general nervous troubles. It did not prevent cinchonism, certainly not in the small doses in which it was usually prescribed. Hydrobromic acid was recommended in preference to the haloids, because it was agreeable to take, non-irritating, and did not produce an eruption or bromism.

Dr. HAMMOND had found the haloid salts more effective in nearly or quite all conditions in which the bromides were indicated. He had employed only the weaker, or Fothergill's, solution of hydrobromic acid, and, contrary to Dr. Dana's experience, it had prevented cinchonism, although bromide of potassium was more effective.

Dr. ESKRIDGE said that hydrobromic acid seemed to fill an indication in typhoid fever. Morphine was most effectual in preventing the disagreeable effects of quinine.

LEAD POISONING SIMULATING OTHER FORMS OF DISEASE.—A paper was read by Dr. J. J. PUTNAM, of Boston, in which the author related eight cases, most of them resembling different forms of chronic and sub-acute myelitis, but afterward proved, by examination of the urine, of the gums, and by other facts, to be cases of lead poisoning. One case simulated cerebral disease. Certain sources of error in the detection of lead in the urine were pointed out.

A CASE OF GENERAL NEURALGIA.—Dr. J. T. ESKRIDGE, of Philadelphia, related the case of a man, twenty-nine years of age, rather stout, nervous organization, without venereal history. Father had died of some spinal trouble. The patient's health was good until 1873, when he had a slight attack of pneumonia. Soon afterward there was pain in the spinal region, and later along the line of the left sciatic nerve; locomotion was very difficult. From this time up to the present the patient had suffered from neuralgic symptoms in various nerves, and finally in nearly all of the sensory nerves of the body, at intervals varying from one to two months. The left facial nerve and the right leg escaped. At one time the temperature of the left leg was from one degree to one and a half higher than that of the right or unaffected side; the temperature of the affected side was at one time notably elevated. There was no affection of the nerves of hearing and of sight; the taste of sugar was imperfectly recognized on the left side of the tongue. The patient grew worse under anti-syphilitic treatment. Various remedies usually vaunted in the treatment of sciatica and rheumatism failed to give relief. Temporary benefit was derived from perfect rest in bed, and from alternate hot and cold douches to the spine. Lately boils had developed over various portions of the body. The question of diagnosis was uncertain; polio-myelitis, myelitis, syphilis, and general neuralgia each had been suggested.

Dr. WEBER, of New York, related a similar case, occurring in a man forty-five years of age, in whom he made the diagnosis of polio-myelitis, a number of cases of which had been reported by German physicians, and had been successfully treated. The present case was completely cured in two weeks by dry cups

along the spinal column, ergot, and bromide of potassium. He looked upon the case narrated by the author of the paper as one of lepto-meningitis.

Dr. ESKRIDGE thought that, if the case were one of lepto-meningitis, the electrical current would cause pain, which it did not.

A CASE OF LOCOMOTOR ATAXIA TERMINATING AS GENERAL PARALYSIS OF THE INSANE was the title of a paper read by Dr. C. K. MILLS, of Philadelphia. The patient was a man, forty years of age, of strong constitution, until about eight years ago, when he began to suffer from symptoms pronounced to be rheumatic, for which he continued to be treated for three years. There had been chancre, but no secondary or tertiary symptoms had manifested themselves. The patient was addicted to venereal excess and to alcohol. A detailed description was given of the symptoms of locomotor ataxia, which developed gradually and became typical, and then passed on, after about four years, to present typical symptoms of general paralysis of the insane. The patient died eight years after the commencement of so-called rheumatic symptoms. A minute microscopical examination was made. Throughout the spinal cord there was marked sclerosis, more marked in the lumbar region; also inflammation of the pia mater throughout. There was sclerosis of the pons, of the optic thalami, and of the cerebral convolutions examined.

Dr. MILLS then reviewed the literature of the subject, and presented the views of various authors with regard to the possible ætiological relation between the two affections named occurring in the same patient, and stated that while at first he was inclined to the view that there had been a direct extension of the sclerosis from the lower portion of the spinal column upward, until it had reached the cerebral convolutions, he was at present rather of the opinion that the condition involved the various portions of the cerebro-spinal system separately, and not necessarily by direct extension from the starting point. He believed that some cases began as a low grade of chronic meningeal trouble, or peripheral perineuritis.

The paper was discussed by Dr. SHAW, Dr. BIEDSALL, Dr. WEBER, Dr. MORTON, and the author. The discussion of Dr. Putnam's paper, having been postponed, was now taken up, and was participated in by Dr. WEBER, Dr. MILLS, and the author.

REMARKS ON THE ALLEGED RELATION OF SPEECH DISTURBANCE AND THE PATELLAR TENDON REFLEX IN PARETIC DEMENTIA.—Dr. E. C. SPITZKA, of New York, began by referring to a paper read by Dr. J. C. Shaw, in which he maintained that there was a relation between speech disturbance and the abolished tendon reflex in general paralysis of the insane. Dr. Spitzka remarked that on *a priori* grounds this view seemed to be as startling as that of Austin, who asserted that the pupils differed according to the delusions, whether expansive or depressive, in the same disease; and, even if it were true, it would require a hundred-fold more proof to establish it than the referring of a certain cortical phenomenon to a cortical area, or a spinal function to a spinal segment. Of course, the tendency in science was toward so assigning functions, while nothing could be more remote than the lumbar enlargement of the cord from the tendon-reflex area and the speech centers, unless it were the frænum terminale from the olfactory bulb. Eighteen cases were read, the majority of which conflicted with the theory.

The paper was discussed by Dr. SHAW, Dr. PUTNAM, and the author.

(To be continued.)

NEW YORK SURGICAL SOCIETY.

A STATED meeting was held May 22, 1883, T. M. MARKOE, M. D., President, in the chair.

AN EXTREMELY COMPLICATED CASE OF CICATRICIAL CONTRACTION FROM BURNS.—Dr. ALFRED C. POST read a paper with this title [see page 682], and showed the patient.

Dr. H. B. SANDS said he had operated twice for the relief of contraction of the fingers caused by a burn of the palmar surface of the hand, and in both cases he had had the advantage of Dr. Post's counsel and assistance. He performed operations similar to those which had just been described, and was surprised to find how freely the cicatricial tissues could be divided without causing mortification. In both of these cases it was necessary to resect several of the joints in order to bring the fingers into a straight position. Subsequently the fingers of those joints which had been resected were considerably shortened; still, their position was very much improved. He had noticed that where resection had been made motion was destroyed, and he would like to ask Dr. Post if he had succeeded in restoring any amount of motion in these resected joints.

Dr. POST replied that absolute rigidity had been prevented, and that it was rather desirable that very free motion should not be established, because there are no lateral ligaments, and free motion could not be established without making the movements of the fingers wabbling or flail-like.

The PRESIDENT asked if in exsection the head of both bones was removed.

Dr. POST said that only the distal end of the proximal bone was removed.

The PRESIDENT asked if Dr. POST proceeded in the same way for contraction of the palmar fascia.

Dr. POST replied that he performed substantially the same operation. He also thought that Mr. Adams, of London, was in error in speaking of Dupuytren's contraction as being always due to gout, as he had seen it arise from a variety of traumatic causes.

Dr. G. A. PETERS said he had recently had a case in which this contraction was brought about by rolling.

Dr. POST remarked that in traumatic cases the integument was firmly adherent to the fascia, and in the cases which he had seen it was not an easy matter to make the incisions without dividing the fascia.

The PRESIDENT said that he had recently seen two cases with Dr. Abbe, who performed the operation described by Dr. POST, and he was surprised at the moderate amount of inflammation which followed the multiple incisions.

Dr. PETERS asked how long counter-extension was maintained.

Dr. POST said sometimes two or three months, alternating with passive motion. He further remarked that there was a curious feature in all cases of cicatricial contraction, and it was that the parts having been bound down, the process of restoring them to their original position by passive motion is very painful.

INTESTINAL OBSTRUCTION.—Dr. SANDS presented two specimens, removed from the body of a man on whom he had performed the operation of inguinal colotomy for the relief of intestinal obstruction. As would be remembered, in the month of March, 1882, he exhibited this patient to the society three weeks after the operation. It would be remembered, also, that the patient had had a faecal abscess to the left of the median line in the umbilical region; that the abscess had closed, and that coincident with the closure of the abscess there appeared signs of intestinal obstruction, which were complete at the time when colotomy was performed. The operation gave entire relief, and the man was able to be about for nearly one year. It

was noticed, however, that during all this time he was exceedingly harassed by an inability to control the artificial opening. This opening was not more than one third of an inch in diameter, but no form of bandage or truss had any effect in preventing the fæces—which were very thin—from escaping. Owing to this infirmity, he was prevented from pursuing his occupation. Dr. SANDS lost sight of the patient for a long time, but finally heard that he was again suffering from intestinal obstruction. When he saw him he found that the escape of fæces from the artificial anus was imperfect, and he therefore enlarged the opening somewhat by the use of sponge tents, giving considerable relief.

On the 15th of April last the patient died, and an autopsy was made on the following day. Death resulted from peritonitis, the cause of which did not seem to be quite clear, although most probably it was due to inflammation occurring at the site of the previous abscess. On opening the abdomen, the coils of intestine were found almost everywhere adherent; recent lymph, mixed with sero-purulent fluid, covered the surface of the intestines, and the pelvic cavity contained a certain amount of turbid fluid. No gas escaped when the cavity was opened, and there was no reason to believe that the peritonitis had been occasioned by perforation of the intestine. The site of the previous abscess was found to be the seat of a phlegmonous inflammation apparently on the verge of suppuration, while opposite to this the large intestine was found firmly adherent to the abdominal wall, the part attached being the descending colon a short distance above the sigmoid flexure. There was also noticed a very firm adhesion between this part of the descending colon and a segment of the small intestine, which subsequently proved to be the jejunum. The large intestine above the sigmoid flexure was enormously distended. The diameter of the distended gut was not measured, but was estimated as being three or four times the normal caliber. This distension extended from the cæcum to a point very near to the sigmoid flexure, where the occlusion of the large intestine was complete. A segment of the abdominal wall was removed corresponding with the site of the adherent large intestine, which was also removed, together with a piece of the small intestine.

It was noticed that the fæces contained in the large intestine were remarkably soft; such as are commonly found in the small intestine.

In the large intestine below the point of complete occlusion was found a small amount of fæces of firm consistency and dark color. The artificial anus was found pervious, the opening being about one fourth of an inch in diameter, and it seemed difficult to understand why the fæces did not escape from it. A portion of the abdominal wall corresponding to the site of the artificial anus was also removed. The two specimens were presented. The first consisted of a portion of the large intestine adherent to the abdominal wall, a portion of the integument, and a piece of adherent small intestine. The most interesting point connected with this specimen was the presence of a large opening, oval shaped, and one inch in diameter, leading from the colon into the jejunum. Besides this, there were two abnormal channels, one narrow fistulous tract starting from the large intestine adjacent to the opening which led to the small intestine, and passing through inflammatory products to a point in the large intestine about an inch below the point of complete obstruction. Just above the complete obstruction there was also a small orifice connected with a smaller tortuous channel, communicating with the small intestine.

The second specimen showed the parts concerned in the formation of the artificial anus. The operation had been performed by cutting through the peritonæum. Pains were taken not to examine too curiously the contents of the abdomen, and

Dr. Sands opened the distended intestine, not knowing precisely what it was, but he believed it to be the cæcum, from the size and position of the gut, and from the fact that it seemed to be fixed to the posterior abdominal wall. The specimen showed that the opening was made into the front wall of the cæcum, near the lower wall of the cul-de-sac. The mucous membrane of the cæcum and the vermiform appendix were considerably thickened, but beyond this no abnormal changes were noticed.

It was interesting to consider what the course of the fæces must have been in this patient during life. Instead of passing, in the usual manner, through the entire length of the small intestine, they must have been diverted, to a great extent, through the large opening already described, into the large intestine just above the juncture of the descending colon with the sigmoid flexure. Being prevented from passing downward toward the anus, they must have traversed the colon in a backward direction toward the cæcum. The ileo-cæcal valve being shut, and the artificial anus very narrow, distension of the colon naturally followed, although it seems as if this might have been relieved by dilating the artificial anus, and by the use of enemata.

Perhaps it was in consequence of the fact that the fæces did not traverse the small intestine that the general condition of the patient deteriorated, leading to rapid emaciation. When the large opening between the large and the small intestine was established it was impossible to say, but it was plain that the fæcal abscess was connected with the large intestine, because no neoplasm was found in any part of the abdominal cavity; nor was any foreign body found in the discharges at the time of the opening of the abscess which could explain the perforation.

Whether the two perforations—that of the large intestine toward the external surface, and that of the large intestine toward the small intestine—had the same cause, namely, follicular ulceration of the large intestine, could not be stated, but this was rendered possible by the several lesions of the large intestine.

The case was remarkable in the fact that an abscess allowing of the escape of the entire fæces should close spontaneously in spite of complete occlusion of the sigmoid flexure, and then give rise to symptoms which required the formation of an artificial anus.

Examination of that part of the mucous membrane of the large intestine which corresponded with the site of the former abscess showed no cicatricial tissue to mark the previous existence of an ulcer in that situation.

The other lesions found were fatty liver with commencing cirrhosis, and a cyst in one of the kidneys, without any other evidence of renal disease. The man was fifty-nine years of age at the time of his death.

The PRESIDENT remarked that not infrequently tubercular ulcers perforated the wall of the intestine, and afterward the fæces found their exit through another part of the intestine, perhaps far distant from the original point of rupture. But in the case reported by Dr. Sands there was no evidence of tubercular ulcers. The President had one case, that of a young lady, suffering apparently from tuberculosis, in which the duodenum opened into the colon, and the patient perished simply from lack of nutrition, and with evidence of peritonitis extending over weeks and months.

Dr. C. K. BRIDGON had an impression that diseases of similar character were not infrequent among colored people. He recollected that the late Dr. Whitall expressed to him that opinion, and showed him a case where an abscess of the abdominal walls was followed by a fistulous communication of the intestines with stercoral ulcers resulting in abscess, and stated that these cases were not uncommon, but that they were always

fatal. Whether such ulcers were tubercular or not he was not prepared to say.

Dr. PETERS thought they probably were.

Dr. BRIDGON had under observation a patient who was admitted to the Presbyterian Hospital with a sinus at the umbilicus, giving exit to flatus and fluid fæces. He was unable to obtain any history of diarrhœa or of dysentery, or very much pain, and, on examining the abdominal walls, the only spot of induration was in the middle line, between the umbilicus and pubes. That led him to make a vaginal examination, and he found a swelling in Douglas's cul-de-sac, but he was unable to make out whether it was the result of infiltration or was a retroverted uterus. The retroverted uterus could be made out, but the mass seemed to be too large for that condition alone. He was able to introduce a sound four or five inches into the fistulous track, and he believed that it passed directly into the intestine.

Dr. POST said that a number of years ago he reported a case to the Pathological Society, that of a gentleman who was thrown from a buggy in Central Park, and received a severe contusion in the loins which led to the formation of an abscess with which the descending colon communicated, and for the remainder of his life he passed his fæces through this fistulous opening. On examination of the body at the autopsy, he found quite a close stricture which had interfered with free evacuation of the bowel in either direction. The greater part of the fæces passed through the fistulous opening, and always where there was solid matter it passed with pain and difficulty. He thought that probably free colotomy would have benefited such a patient.

Dr. BRIDGON asked Dr. Sands whether he regarded the difficulty which his patient experienced in retaining fæces depended upon the location of the artificial anus or upon the fluid condition of the fæces from the communication with the small intestine.

Dr. SANDS said that he did not know, but he imagined that it depended considerably upon the situation of the artificial anus, and he should regard this as a great drawback to the operation of inguinal colotomy.

Dr. BRIDGON remarked that he had not seen a case in which the patient experienced any trouble in retaining fæces after lumbar colotomy.

ACUTE OSTEOMYELITIS FOLLOWING SLIGHT INJURY OF THE ANKLE.—Dr. CHARLES MCBURNEY presented the leg and foot removed a few days since from a child nine years of age, which illustrated how extensive might be the damage done by a neglected periostitis. Two months ago the child, while jumping the rope, struck the ankle with the other foot, which gave her extreme pain and caused her to fall. Curiously enough, the child was allowed to go to school on the next day, and continued to do so for four weeks, but at the end of that time the pain and suffering were so intense that a physician was sent for, who regarded the case as one of cellulitis, and treated it as such by the application of poultices, subsequently made some incisions, and gave vent to a large quantity of pus. The case, however, did not progress favorably, and, consequently, Dr. McBurney was invited to see it in consultation. He found the foot exceedingly œdematous, and also the leg up to the knee, and the skin was covered with blebs. The child's general condition was very bad; there was alternating high and low temperature, with sweats, etc. Quite a large granulating orifice on the inner aspect of the limb, and a similar one on the outer aspect. There was evidence of extensive denudation of bone, and the epiphysis of the tibia at the ankle was separated. The joint was opened; the articular cartilages were more or less destroyed. Dr. McBurney amputated the limb at the middle of the leg, closed the wound

with carbolized silk sutures, powdered it with iodoform, inserted a drainage tube at the lower angle, and applied a peat dressing over the whole. The temperature had not risen above 99° F. since the operation. Previous to that it fluctuated between 99° and 102°, accompanied by sweats and general constitutional disturbance. The dressings had been changed at intervals of varying length, the first being allowed to remain five days, at the end of which time the drainage tube was removed, and the progress of the case thus far had been eminently satisfactory.

URINARY CALCULI.—Dr. BRIDGON presented specimens, and related the history of a case as follows: On Sunday afternoon he was called to the Presbyterian Hospital to see a child two years old, who had suffered eight or nine months ago from an attack of abdominal pain which had been called renal colic. Since that time he had had frequent attacks of pain, frequent micturition, and a disposition to pull upon the prepuce. Two or three days before admission he had an attack of retention of urine, which was relieved by the catheter. On the night before admission he attempted to empty a distended bladder, but only with partial success. On the afternoon of the day of admission the bladder was distended up to the umbilicus, and the house surgeon attempted to introduce a catheter, but found an obstruction about three inches from the meatus, which he was unable to overcome, and the bladder was then aspirated. Dr. Bridgdon saw the patient at nine o'clock in the evening, passed a silver catheter, No. 6, down to the obstruction, and without material difficulty succeeded in introducing the instrument into the bladder and emptied it. The child's temperature that night was 106° F., a fact for which he was not able to account. On the following day the temperature was 105° F., and the bladder was again distended. He introduced an instrument into the bladder, encountered an obstruction, but whether it was in the prostatic portion of the urethra or in the bladder, he was unable to say positively. He performed median lithotomy, encountered no obstruction in entering the bladder, readily came upon the smaller of the two calculi presented, which was exceedingly minute, and removed it. He then withdrew the staff, introduced the finger, and found the large calculus lying in the incision; probably it was the calculus which had been impacted within the urethra, and it was about five sixteenths of an inch in diameter.

Dr. BRIDGON also presented a specimen of the same character, which he obtained in 1861. He was called to visit a child two years and seven months old, who was suffering from retention of urine. He introduced a catheter, detected a small calculus, but found no difficulty in drawing off the urine. On the following day he was about to proceed to remove it by lithotomy, and as soon as he drew the prepuce down he found a small calculus impacted in the meatus, about half of it projecting, and it was easily removed. After its removal he introduced a sound into the bladder, and detected a large stone, which he removed by the lateral operation.

He was unable to explain the high temperature which occurred with the retention of urine in his first case.

Dr. Post remarked that retention of urine was a cause for considerable constitutional disturbance, and probably of itself would explain the elevation of the temperature.

Dr. BRIDGON thought it unusual for retention to be associated with such a high temperature.

DISLOCATION OF THE HEAD OF THE FEMUR IN ACUTE RHEUMATISM.—Dr. C. T. POORE narrated a case as follows: On Tuesday last he was called to see a boy, seven years of age, who had had inflammatory rheumatism for four months. As a result, there was contraction of both knees, and the left thigh was flexed and adducted considerably. On examining the limb very care-

fully, he found that the head of the femur was dislocated upon the dorsum of the ilium. He thought that there was no doubt but that it was a case of acute rheumatism, and that the hip had been out for at least six weeks. The dislocation was reduced, but it recurred. He proposed to divide the tendons and place the patient in a fixed apparatus. The acute attack of rheumatism involved both knees and the left hip, which was the one that was dislocated, and also the elbows.

The PRESIDENT said it would seem that such a dislocation could not occur without some change in the acetabulum. The inference would be naturally that there was some coxitis present.

Dr. POORE said that he thought there was no doubt but that it was a case of simple acute rheumatism. There certainly was no evidence of morbus coxarius. Further, the hip joint has been known to be dislocated in acute diseases—for example, in typhoid fever, a case of which was recorded last year in one of the Liverpool journals.

MEDICAL SOCIETY OF THE COUNTY OF NEW YORK.

A REGULAR meeting was held May 28, 1883, the President, DAVID WEBSTER, M. D., in the chair.

THE LOCAL USE OF ANTISEPTICS AFTER LABOR AND ABORTION.—Dr. W. GILL WYLIE read a paper with this title [see p. 679].

In the discussion, Dr. PAUL F. MUNDÉ said that for several years he had had most positive convictions on the subject, and had followed a decided practice in the treatment of puerperal septicæmia. Since Dr. Chamberlain introduced the long glass tube known by his name, he (Dr. Mundé) had made it a rule to inject every puerperal uterus as soon as the temperature rose above 102° F., whether the lochia became offensive or not. He continued these intra-uterine injections (of a two-per-cent. solution of carbolic acid) three or four times daily until the temperature was permanently lowered, or until their inefficiency became evident. He had thus repeatedly reduced the temperature from 105° to 102°, from 103° to 98°, and the pulse in proportion. He had seen the temperature remain down after a while—but, again and again, he had seen it go up, and finally stay up, in spite of the injections. It was true, he had not repeated them so often as Dr. Wylie had done, and perhaps his occasional bad results had been due to this fact. In future he would certainly follow Dr. Wylie's plan in intractable cases.

But he would like to direct attention to the fact that in all cases of puerperal septicæmia there was a time when intra-uterine injections not only did no good, but were even positively injurious, viz.: 1. In cases where the lochia were not at all offensive, and the seat of infection seemed already to have spread to the parametric tissues, and to lie beyond the reach of intra-uterine medication. 2. Where the injections had been used faithfully for a period of from forty-eight to seventy-two hours, with little or no benefit—certainly no lasting benefit. In both these sets of cases the disease had already advanced beyond the scope of local remedies, and in those of the second category the injections even seemed to provoke a traumatic rise of temperature; he had known the frequent introduction of the tube, and the injection of medicated fluids, to do harm, and to be followed by more or less hæmorrhage. But in a fresh case of puerperal septicæmia, or indeed in any case where there was a rise of temperature, especially if the lochia were fetid, his first step was to wash out the uterus, repeating it as often as the temperature seemed to require; and the results in many cases had been so surprising, so immediate, and so beneficial as to make him feel the greatest confidence in the treatment. In a few cases, it was true, it had failed, but those were mostly cases to which he had been called in consultation at a late period in their course. In the very few cases in which the injections had failed and yet the patients had recovered, the salicylate of sodium, in ten-grain

doses every two hours or oftener, had seemed to produce a permanent reduction of temperature, followed by recovery, even after failure with the largest doses of quinine.

Dr. MALCOLM McLEAN was a strong advocate of the practice of intra-uterine antiseptic washings, as recommended in the paper, but considered it necessary to repeat them oftener than every three hours. He thought the paper did not lay stress enough upon the necessity of guarding against the dangers of intra-uterine douches, which were: 1. The danger of forcing fluids through the Fallopian tubes into the peritoneal cavity, producing profound shock, and possibly peritonitis. 2. The introduction of air into the uterine sinuses. To avoid these accidents, he urged the importance of using a *continuous* stream, like that from the fountain syringe, and not an interrupted one: and the stream should be flowing *before* the tube entered the uterine cavity. It was best to use a soft catheter. Accordingly, he could not agree with the reader of the paper that it was good practice to leave an empty tube in the uterus for injections to be given through at intervals—possibly by a nurse. The operation was sufficiently important to be done by the physician only.

In cases of septic absorption after early *abortions* it was difficult to use a good-sized tube and allow free exit to the fluid alongside. In such cases he had found the practice of wiping out the uterus with a strong solution of carbolic acid in glycerin, by means of a cotton swab, an easy, safe, and efficient method of thoroughly cleansing the uterine cavity.

He believed that many failures to reduce alarming temperatures in septic cases after labor were credited to intra-uterine douching, when in fact only vaginal douches had been used. He added that his remarks were all based upon an earnest study of the subject in his own practice, and upon the reports of very trustworthy and capable observers; the dangers he had alluded to had been demonstrated in his own experience.

Letters to the Editor.

THE CODE QUESTION.

NEW BRIGHTON, N. Y., June 3, 1883.

To the Editor of the New York Medical Journal:

SIR: I have no desire to add to the futile discussion of the respective merits or demerits of different "codes"; but, from the standpoint of that "personal liberty" which is the alleged basis of the State society's recent action, an inquiry concerning the position of the non-political private practitioner seems to be in order.

In a paper on the Status of the Medical Profession, in your issue of June 2d, I find the following statements:

First, that "the State society, with perfect deliberation, and with its eyes open, resigned from the American Medical Association"; and that this action was taken by the "large vote" of "fifty-two to eighteen."

Second, that those who have incited the various county societies to the "seditious action" of determining for themselves whether or no they will adhere to the pre-existing code are "apparently unaware that such action by the county societies would be absolutely null and void"; and that the said county societies may be assured that the code which has always hitherto ruled them "can not be of any other use to them, except, perhaps, to beguile the American Medical Association into admitting them to representation."

Thirdly, that "the propriety of instructing delegates" from the county societies to vote in accordance with the sentiments of their constituents "is open to question."

I am not—nor have I any ambition to be—a member of the State Medical Society (which I have heretofore regarded as a purely representative body, like a State legislature, instituted to embody and carry

out the views of its constituent county societies as represented by their delegates), but I am a member of a county society which, from its inception, has made acquiescence in the national code one of its conditions of membership. It appears now, however, that my fellow-members and myself (with the one independent exception of our delegate) can have no opinions of our own touching our rules of professional conduct, but that we must change our views of right and wrong at the bidding of fifty-two gentlemen, to whom, howsoever much we may admire their personal characters and professional attainments, we have never deputed control over our consciences. The constitution and by-laws which were approved by the State society up to last year must be reversed at their behest (and, for all we can foresee, may have to be altered annually hereafter) under pain of discipline for sedition.

If fifty-two gentlemen, however conscientious be their deliberations, can not only resign their own connection with the national medical association, but carry with them, *volens volens*, all the county societies of the State, comprising some thousands of practitioners, there is virtually established an oligarchy which, in principle, appears more objectionable than the alleged tyranny of the American Medical Association. Even in larger numbers, if uninstructed delegates, misrepresenting their constituents, and permanent members, representing no constituency at all, can agree upon such wholesale "resignation," their action seems analogous to that of a State legislature which should pass a secession ordinance, regardless of the sentiments of the voters at large. In either case, the autonomy of the local societies—the only organizations really representing the mass of the profession—is set at naught; their action, or, rather, inaction, in conserving the rules formerly declared necessary for their existence is pronounced null and void; and the great multitude of home-staying practitioners are reduced to the condition of mere puppets, without even a reasonable excuse for expressing their preferences through their few delegates to Albany.

I am, sir, yours, etc.,

ALFRED D. CARROLL.

THE AMERICAN MEDICAL ASSOCIATION.

NEW YORK, June 14, 1883.

To the Editor of the New York Medical Journal:

SIR: Your courtesy on two former occasions, in allowing me to express through your columns views at variance with your own, emboldens me to presume once again; this time, however, not for commendation, but for complaint.

The American Medical Association, for which I entertain sentiments of respect and admiration, in which I can not suppose you fully sympathize, has disappointed me sorely in the selection of its presiding officer. I did expect that at this time, above all others, when interest in regard to ethical matters is at its height, the association would have chosen for its president a man whose loyalty to its code as it stands, *verbatim et literatim*, would be above suspicion. This it has failed to do. It is scarcely more than a month since Dr. Flint, through the columns of your own journal, labored to break down the force of the restrictive clause in the code, and concluded by saying: "It is to be hoped that the American Medical Association will adopt such modifications in the phraseology of this section as will place restrictions on consultation, not on the ground of doctrines or forms of belief, but on separation from and avowed antagonism to the medical profession." Now, when it is remembered that, on the ground of doctrines and forms of belief, we thrust the homœopaths neck and heels out of the profession, and ourselves created the "separation" and "antagonism," I submit that Dr. Flint does not leave us a visible leg to stand upon. Heaven save us from our friends!

But I am glad to see that Dr. Flint has so far reconsidered his views as to be able to sign the required pledge to sustain the code as it is. I hope there is in this case none of that mental reservation referred to by Dr. Flint, Jr., at the Academy, and so ably exposed by Dr. Squibb in the article to which I called attention last week, and that we shall not be mortified next year by any movement toward a change. I am the more solicitous about this as I am informed that a great many joined the movement for re-enacting the old code in this State in the belief that our leaders would initiate some action in the asso-

ciation this year looking to revision. No expressions of disappointment or dissatisfaction to which these men may give utterance should be allowed for a moment to have weight with the association at its next session. The slightest concession now would be an evidence of pitiable weakness, and I trust that, whatever Dr. Flint's personal views may be, he will stand to the letter of his pledge.

It is exceedingly painful to me, Mr. Editor, to make these strictures, for I have the very warmest personal affection for Dr. Flint. But those of us who still smell the sulphurous atmosphere of the conflict of forty years ago can not renounce the feeling by which we were then actuated. In a moment of common peril private considerations must give way. It is not that I love Cæsar less, but that I love Rome more. Our noble code claims the devotion of my heart, and when danger threatens it, personal friendship shall not deter me from lifting up my voice in its defense.

Yours very truly,

BOURBON.

THE PHYSIOLOGICAL EFFECTS OF NITRO-GLYCERIN.

TOMPKINSVILLE, N. Y., June 10, 1883.

To the Editor of the New York Medical Journal:

SIR: In the "New York Medical Journal," vol. xxxvii, page 562, in a foot-note, the "translator" asserts "that Field, in England, was the first to describe, twenty years ago, the physiological effects of nitro-glycerin."

Please insert the following in your journal as a correction:

In "Zeitschrift für homœop. Klinik," vol. ii, page 52, April 1, 1853—(THIRTY years ago!)—provings and cures with this drug are reported.

In "Amerikanische Arzneiprüfungen," by C. Hering, M. D., Leipzig and Heidelberg, 1857—(TWENTY-SIX years ago!)—a treatise of this drug of 116 pages is published, which contains provings and cures. We find there that this drug was used in 1847, '48, and '49 by Carrol Dunham, of New York city, Okie, and other homœopathic physicians in the United States and Europe. *This was THIRTY-SIX years ago!!* In Liebig's "Journal" of the year 1851 cures are published. I myself experimented with it thirty years ago. You see that your translator is quite wrong and behind the times.

Yours respectfully,

G. OEHME.

THE MARINE-HOSPITAL SERVICE.

PHILADELPHIA, June 15, 1883.

To the Editor of the New York Medical Journal:

SIR: Dr. Hamilton's reply of the 21st ult., in your issue of June 2d, is not calculated to do "justice to the Marine-Hospital Service," nor to himself. He is, doubtless, pricked by his own conscience and the voice of the profession, rather than by the editorials of the "Medical Times," which are probably based upon the Treasury Reports and comments of the medical and secular press.

Dr. Hamilton states that he "simply replied to an assertion that it would be more economical to treat merchant-sailors in naval hospitals. He nowhere attacked the professional character of the medical corps, many of whom he numbers among his personal friends." Whose assertion? The assertion of a *midshipman*, which is not deemed worthy of a reply from the supervising surgeon-general? No one knew better than Dr. Hamilton that the Naval Medical Corps had nothing whatever to do with any proposed transfer of his department, and that it had no inducements to offer him nor his, as it was struggling to exist, and to retain a "bogus rank," which the line will neither acknowledge nor respect. It was, therefore, not anxious to increase its numbers and responsibilities, and yet he struck at this body—"many of whom he numbers among his personal friends." In the "Boston Herald" of the 20th of February, in that part of Dr. Hamilton's report characterized as "*picturesque*," the medical corps of the navy is assailed by an unworthy fling at its "flourishing (medical) society," and by other statements which drew forth a sharp reply on the 21st, from a medical officer of the navy who charges him with "dragging his attempt at argument through the dirt and slime of vituperation and abuse."

Referring to his report of January 5th, Dr. Hamilton appears to be *in doubt* (p. 34) about any intended transfer of the Marine-Hospital Service. To midshipman Alger, the author of all his woe, he deigns no reply, but pitches into the "aristocratic" medical corps, kindly suggests the "discharge of some of them" ("*many of whom he numbers among his personal friends*"), and, after an odious financial and professional comparison between the two services (p. 39), and a self-glorification of his own work (p. 38), he again ungenerously suggests the "discharge of supernumeraries," and winds up at page 39 with the astonishing statement that "it is not presumed that the common sailors entering hospitals ought to be subjected to the rigors of naval discipline, or that they should be put to bed at the point of the bayonet, and there is therefore no reason why the military should have especial and peculiar charge of this matter." It is unnecessary to follow the doctor further. Suffice it to say, that his own language will best convince the reader of his feelings toward the "medical corps, many of whom he numbers among his personal friends, and for whom, as a body of professional men, he entertains the highest respect."

ANOTHER MEDICAL OFFICER OF THE NAVY.

Miscellany.

THE ACTION OF CANNABIS INDICA.—In an article published in the "British Medical Journal," Dr. James Oliver, House Physician to the Hospital for Women, London, remarks upon the variable character of the effects produced by Indian hemp, and continues as follows:

"Two preparations of this drug have been recommended for use—viz., the tincture and the extract; it should matter little which is used, the tincture being simply a spirituous solution of the extract. Much, however, as far as results obtained go, seems to depend upon its place of cultivation. Many of those persons who experienced unpleasant effects from one-grain doses had previously taken the same dose (different sample, however) with almost no result at all. It is usually said that cannabis Indica produces pleasurable symptoms; such, I regret to say, has not been my experience; in fact, the result has frequently been alarming to the friends of the patient, but more frequently still, from the comparative inertness of the drug, no result is obtained at all, even although three and four grains have been given as a dose. When unpleasant symptoms have been produced by the use of this drug, they do not readily pass off, but will often persist for a day or two, and the too early use of morphia will not uncommonly aggravate the condition. The physiological effects of the drug usually manifest themselves about two hours after administration; this, however, varies, being hastened or retarded according to the condition of the stomach as regards food at the time of ingestion. Cerebral symptoms are the first to develop, the patient experiencing peculiar indescribable sensations in the head, by no means pleasant in character; and, although quite rational, knowing all that is going on, some have an irresistible desire to be always on the move. In some cases earlier, in others later on, the patient loses control over the muscles, being unable to move them at will; in one case the muscles of the larynx were so affected, and the patient, when interrogated, was for the time being unable to respond. Muscular anæsthesia is often produced by the use of Indian hemp, and this is, as a rule, so complete that the whole body feels unsupported, as if floating in air. Pain, even at this stage, frequently persists, showing how little influence this drug evidently has on the sensory nerves. In some cases spasmodic contractions of the voluntary muscles result, and this is more especially to be noted in the muscles of the jaw. Dimness of vision in many cases quickly follows, the pupils in some remaining unaltered, in others being apparently contracted. The pupil responds to light, but accommodation is interfered with, objects at a distance being very indistinct. The pulse is invariably rapid, but quite regular. Sensibility to touch is unaltered. Numbness and tingling have been constant symptoms in all the cases."

KEFIR, A NEW MILK FERMENT.—While, during the last few years, koumiss has been introduced into western Europe and even into America,

says the "British Medical Journal," a new drink, prepared from cow's milk by a process of fermentation imperfectly understood, is coming into use in Russia. This drink is kefir, and it has for long formed the chief article of diet among the mountaineers in the neighborhood of Mount Elbruz and Kasbek, in the Caucasus. It forms a thick, white fluid, with a faintly acid flavor, said to resemble certain light wines. The mountaineers themselves call it "Ghippo." The inhabitants of the plains near the Caucasus, and the Russian settlers, who term it kefir, kifer, or khiafar, make use of it, not for the table, but as a popular remedy for anæmia, struma, gastric catarrh, and chronic bronchitis. According to the *Moscow Medical Gazette*, where a contribution on the subject has recently appeared, Dr. Kern being the author, the preparation of kefir is very simple. The mountaineers make it by filling a bag made of goat-skin with milk, then a tenacious mass, of the size of a walnut, of a material which they term "kefir-seed," and the precise origin of which is unknown, is added to the milk. In a few hours the process of fermentation sets in actively. When prepared in wooden or glass vessels, the kefir tastes better. After a lapse of twenty-four hours, a weak kefir is produced; when the process is allowed to continue for three days, the kefir becomes very strong. The source of the ferment is scrupulously concealed by the Caucasian mountaineers, who, with the humor of the English cook, who once sold a secret for making "funvied cheese," the "secret" being that the cheese must be funded after t'asting and before the addition of pepper, can not be persuaded to enlighten strangers to any greater extent than in supplying a small sample of the ferment, in the form of dry, dark-brown, earth-like masses, but steadfastly refusing to say whence they are obtained. One of these fragments, dropped into milk, begins rapidly to effervesce, turns milk-white, and assumes the form of a mulberry; then fermentation proceeds at once. If a piece, thus transformed, be dropped into another bowl of milk, it rapidly increases in size, and also causes fermentation. Dr. Kern has carefully examined specimens of this "kefir-seed," which consists chiefly of masses of zoöglæa, holding together collections of a bacterium which he calls *Dispora Caucasica*. The yeast-fungus, *Saccharomyces cerevisiæ*, is always found associated with this new germ. "Kefir-seed" retains its vitality after remaining for months in its dry condition. Dr. Kern has a great belief in the future of kefir, which has all the virtues of koumiss, and possesses one great advantage over the latter fluid in that it is just as good when prepared from cow's as from mare's milk.

LAUNDRIES AND INFECTIOUS DISEASES.—The danger of sending infected linen to the common laundry without previous disinfection, says the "British Medical Journal," must be obvious to any thoughtful person; but, like many other obvious things, this danger needs to be impressed again and again upon the attention of careless householders. A laundress may, unwittingly or otherwise, be both the recipient and the retailer of infectious particles; and to her powers of mischief in both capacities the following examples eloquently testify: Dr. Cameron, of Hendon, writes that laundries are a constant and prolific source for the introduction of small-pox, scarlet fever, and other diseases. Indeed, all the cases of scarlet fever and small-pox that occurred at Hendon during the past year were either introduced by persons coming into the district with the disease upon them, or through the medium of infected clothing being sent to be washed without previous disinfection. In September, scarlet fever was introduced through this medium, and thirteen children were attacked. Another outbreak in December seemed to emanate from one of the laundries, but, the children being at once isolated, the disease did not spread. Dr. Bruce Low, of Helmsley, in Yorkshire, has a remarkable experience to record. A young girl was hired to go to a house where there were two convalescents from scarlet fever, of which cases she was aware when engaged. A week after she went to her situation she contracted the disease, and was sent home as soon as the rash was discovered. No medical advice was sought, to avoid what her mother called "bother." This woman took in washing, and, as soon as the daughter was able to go about, she was sent out with the clean linen to the various houses. At one house, at least, the coppers received from the girl in change from the washing-bill were accompanied by large flakes of skin, which had peeled off the girl's hands. At the

house where the scales were received with the coppers and the linen there were subsequently several cases of severe scarlatinal sore throat. These facts were only traced some few weeks afterward; too late, of course, to prevent the mischief.

NOTES ON PARALDEHYDE.—Under this heading Dr. John Brown writes to the "British Medical Journal" as follows: "As I have prescribed this new drug on several occasions, it may be of interest to give my experience. The dose as a hypnotic is from thirty to fifty minims. It produces sleep in most cases in a few minutes after taking it, the effect lasting from three to seven hours. Larger doses, no doubt, would produce longer narcosis. It produces no headache, no constipation, nor stomach derangement, contrary to the report given of it. In one case it caused a slightly depressant effect on the heart. In a patient who had been accustomed to take chloral, it was stated that the sleep was refreshing, but, if disturbed during the sleep, the tendency to sleep left, which was not the case with chloral. Paraldehyde in some cases causes a peculiar burning taste in the mouth the following morning. The breath smells of the drug for several hours after waking. It is probable that nearly all the drug is got rid of by the lungs in the same state as it is taken. Paraldehyde is not much, if anything, superior to chloral. It costs five shillings per ounce; chloral, sixpence per ounce; besides which, it requires a larger quantity of the former, so that it is about sixteen times as dear as chloral. Therefore it is not likely to come into general use. Being so insoluble in water, it makes rather a large draught, which is objectionable."

A NEW METHOD OF TESTING FOR SUGAR IN THE URINE.—Dr. George Oliver, of Harrogate, lately read a communication before the Clinical Society of London on a new method of detecting sugar in the urine. "The principle of the test," says the "Medical Times and Gazette," "consists in the fact that by boiling saccharine urine with a solution of sulphindigotate of sodium, which has a blue color, a gradual succession of color-changes, passing in order from blue across the colors of the spectrum finally to yellow, takes place. The test can be carried about in the form of blue papers saturated with the indigo solution. The papers yield a clear, blue solution with distilled or fairly pure water. Indigo-blue in the presence of glucose becomes a colorless fluid: this was the circumstance which led Dr. Oliver to examine diabetic urine in this regard."

CEREBRAL VACUOLATION.—In a paper, by Dr. Hale White and Dr. Savage, lately read before the Pathological Society of London, a report of which we find in the "British Medical Journal," it was shown that there were nine causes for holes in the brain: 1. Small processes of sclerosed meninges, in cases of general paralysis, dipped into and excavated minute portions of cerebral tissue. 2. In the same disease the sclerosed neuroglia, by its contraction, might give rise to small cavities. 3. There might be multiple hydatids in the brain. These three conditions were very rare, the authors having no knowledge of the second, while the third was almost confined to animals suffering from staggers. Several references to continental authors were given, while the relation of the muslin appearance to the second of the above was pointed out. 4. The fourth cause was the dilatation of cerebral vessels giving rise to the "état criblé." It was particularly emphasized that this was, in the majority of cases, of no pathological significance. 5. Shrinking of the cerebral convolutions in some cases gave rise to holes in the subjacent cerebral substance; a very good example of this condition was exhibited. 6. Miliary aneurysms, as Charcot had pointed out, might give rise to holes in the brain-substance; some very marked specimens showing this were exhibited. 7. In the condition known in Germany as *die Porencephalie*, a large gap existed in the brain-substance; this might communicate either with the exterior or the interior of the brain, or both. 8. The Gruyère cheese condition. This, it was pointed out, was quite different from the *état criblé*, for it was due to a dilatation of the perivascular lymphatic space of Hiss. Of the causes of this dilatation nothing was known; probably they were local, so the dilatation was saccular. The authors showed an example of this condition in which the whole of the brain, except the lower part of the medulla, was riddled with cavities exactly like those found in cheese, and microscopic specimens exhibited

showed that these holes were produced by this perivascular dilatation. The shape and direction of the cavities also corresponded with those of the vessels. Very few examples of this condition had been carefully described; in England only one, by Lockhart Clarke, who referred it to the same cause. 9. The authors showed specimens from two remarkable cases in which the kidneys, lungs, liver, heart, and brain all contained holes; in the kidney these cysts were due to the dilatation of either the tubules or Malpighian capsules; in the liver they were due to the vacuolation of the hepatic cells; in the lungs and brain it was impossible to come to any definite conclusion as to their origin, but in both these viscera the cavities contained a peculiar material, staining deeply with logwood; both the subjects were lunatics. Cases in which there were only a few holes, such as patches of softening hæmorrhage, were not considered to come within the scope of the paper.

SHOULD WOMEN RIDE LIKE MEN?—Such is the question which is being seriously discussed in the columns of a contemporary. Perhaps it would be as well to leave the determination of the question to those whom it principally concerns. We fancy they have no wish to change the custom. As a matter of fact, although it may not appear to be the case, the seat which a woman enjoys on a side-saddle is fully as secure, and not nearly as irksome, as that which a man has to maintain, unless he simply balances himself and does not grip the sides of his horse either with the knee or the side of the leg. It is curious to note the different ways in which the legs of men who pass much time in the saddle are affected. Riding with a straight leg and a long stirrup almost invariably produces what are popularly called knocked-knees. Nearly all the mounted soldiers of the British army suffer from this deformity, as any one who will take the trouble to notice the men of the Life Guards and Blues walking may satisfy himself. On the other hand, riding with a short stirrup produces bowed-legs. Jockeys, grooms, and most hunting men who ride very frequently are more or less bow-legged. The long stirrup rider grips his horse with the knee, while the short stirrup rider grips him with the inner side of the leg below the knee. This difference of action explains the difference of result. No deformity necessarily follows the use of the side-saddle if the precaution be taken with growing girls to change sides on alternate days, riding on the left side one day and the right on the next. The purpose of this change is to counteract the tendency to lean over to the side opposite that on which the leg is swung.—*Lancet*.

A NEW BRITISH PHARMACOPEIA.—A new edition of the British Pharmacopœia will be published before long. According to the "*Lancet*," the Pharmacopœia Committee have reported an arrangement to the Council by which, under their direction, Professors Redwood, Bentley, and Attfield will undertake the duty of preparing this edition. The remuneration to these gentlemen is to be £300. Their report is a document which will repay perusal. They recommend considerable changes in chemical nomenclature, in symbol notation, and in the method of representing the quantities of ingredients to be used in the preparation of medicines. They advise the addition of twenty-nine articles, and the omission of three.

SIR HENRY THOMPSON ON CIGARETTE SMOKING.—Sir Henry Thompson writes to the "*Lancet*" as follows: "I think I might, if permitted, offer you a practical hint of some value in connection with cigarette smoking, which I think is not altogether appreciated by the author of your notes on the subject.

"First, the cigarette, without a mouthpiece, is really never smoked more than half way through in the East, where cigarettes are very cheap. It is well understood there, as it is by all practiced cigarette smokers, that every inhalation from a cigarette slightly deteriorates in quality from the first. A small deposit of the very offensive oil of tobacco is deposited in the finely cut leaf, which acts as a strainer, and intercepts the deposit as it passes. Very little of this arrives in the smoker's mouth if he stops when half is consumed. I have seen many Oriental smokers who consume no more than a third. Turkish ladies, for example, as I have had personal opportunities of observing at Constantinople, will smoke fifty or upward in a day, but, I need scarcely say, only in the manner I have described.

"Secondly, if a cigarette with a card mouthpiece is employed, the noxious matter may be intercepted by always introducing a light plug of cotton wool into the tube. If now the cigarette is nearly consumed, a considerable quantity of brown and very offensive matter will be found in the cotton wool, from the evil of which the smoker is thus preserved.

"Thirdly, some years ago I designed a cigarette-holder or mouth-piece, which opened transversely in the middle, disclosing a small cavity, which is filled with cotton wool. It would surprise many people, perhaps, to find that the result of smoking six cigarettes only in this tube is that this plug is saturated with a brown fluid like treacle, of powerfully offensive odor, and disagreeable almost beyond belief. The wool then requires to be changed, and in this manner the evil of smoking is very greatly diminished. Several of these were constructed by a well-known tobacconist close to your office in the Strand.

"Lastly, the maximum of pernicious influence which occurs through cigarette smoking is attained by the practice of inhaling the smoke largely direct into the lungs, where it comes into immediate contact with the circulation, and the toxic effect is so strongly perceptible after three or four consecutive inhalations, and so felt by a sensitive person to the very tips of the fingers. I have no doubt that the effect would in most cases be notably recorded by the sphygmograph. Such smoking is, of course, or ought to be, exceptional. All the fragrance, with a little only of the toxic effect, is obtained by admission of the smoke into the mouth only, still more by passing it through the passages of the pharynx and nose; but it is the pulmonary inhalation referred to, often associated with cigarette smoking, and rarely with the pipe, which constitutes the chief mischief of the cigarette. I may say, in passing, that that well-known Oriental method of smoking, practiced by means of the narghileh, in which the smoke, although drawn through water, passes invariably through the lungs, explains the powerful effects which sometimes unpleasantly surprise novices in its use.

"Smoked, then, simply, and with cotton wool interposed, I do not hesitate to regard the cigarette as the least potent, and therefore the least injurious, form of tobacco smoking. Without this precaution, it may be made, although not necessarily, the most ready means of conveying the active principle of tobacco, by means of smoke, into the system."

PEROXIDE OF HYDROGEN.—Side by side with the increase in our knowledge of septic agencies in disease, says the "*Lancet*," there has grown up a long series of antiseptic substances, on some of which different observers have placed varying amounts of reliance. Among the most recent aniseptics must be enumerated the peroxide of hydrogen, the use of which was first advocated, we believe, by Kingzett, in this country, and which is said to form the active principle of the "sanitas" preparations. In France, MM. Paul Bert and Regnard have paid special attention to the properties of this oxygenated water. Its use has been proposed and carried out by many surgeons in the treatment of unhealthy wounds; it seems to have been particularly valuable in bringing about a healthy action in atonic ulcers. Encouraging results have also been obtained from its employment in contagious diseases, such as some forms of ophthalmia, purulent cystitis, and the like. The peroxide of hydrogen is believed to act by destroying the activity of the micro-organisms of disease. The most recent communication on the use of the peroxide was made by MM. Paul Bert and Regnard before the Société de Biologie de Paris. Its employment was suggested in the treatment of deep-seated, irregular-shaped abscesses, in certain cysts of undoubted parasitic origin, and in many forms of diarrhoea which were known to be associated with an increase in the number of lovely organisms, and the presence of which probably had a considerable influence on the progress of the diarrhoea. In a similar fashion a benignant influence might be exerted on ulcers of the stomach; in such cases the oxygenated water ought to be administered in the intervals of food, because digestion is greatly disturbed by its presence. The inhalation of the medicament by means of steam was suggested for cases of pulmonary phthisis, the contagiousness of which disease is regarded as beyond doubt; the mode of action of the inhalation is said to be the destruction of the living contagium. It is true, the authors say, that some microbes are provided with a protecting envelope, which

sets at defiance external agencies; but we yet require to know whether this is the case with the germs of phthisis. Further experiments must be made with a view to determine whether the bacillus of phthisis can be destroyed by peroxide of hydrogen. Some bacteria are certainly not damaged by it; in this group come the bacillus of charbon and of glanders. The evidence for the assertion concerning the bacillus of glanders rests on the following experiment made by the authors. Some diseased tissues from a case of glanders were treated with peroxide of hydrogen on the one hand and with simple water on the other. Inoculations performed on two mules led to the death of both animals, though one had been vaccinated from the virus which had been submitted to the action of the oxygenated water.

THE MEDICAL PROFESSION AND THE PLEA OF INSANITY.—After remarking that Mr. Justice Kay is of opinion that "the medical profession is only too ready to attribute acts which are out of the ordinary course, and especially acts of violence, to insanity," the "Lancet" says: "This is the impression which prevails among the judges generally. Recognizing the existence of this feeling, practitioners should undoubtedly exercise the greatest possible care in the expression of any opinion on the mental state of persons accused or convicted of crime. It would be a grievous hindrance to the cause of scientific truth and progress if ground were given for the strengthening of the injurious impression which prevails. Neither fear nor favor can be allowed to affect the judgment at which a medical man arrives after careful examination of his case; but the knowledge that his opinion is likely to be received with reluctance, or even an adverse bias, if it happened to be of a particular kind, should certainly be taken into consideration in forming a judgment, and ought to render him in a very special sense careful to eliminate all sources of error from the bases of his inference, and to see that it is so formed that it may be energetically and forcibly supported in the face of any question which may subsequently arise."

ANÆSTHETIZATION DURING SLEEP.—Apropos of Dr. J. H. Girdner's recent article in the "Medical Record," Dr. W. A. Mansfield, of Champaign, Ill., writes as follows to the "Weekly Medical Review": "After seeing his article I performed an experiment upon a healthy young man of twenty-five years, with the result of completely narcotizing him without his awakening or showing any sign of consciousness, only as I pinched him in the first stage of the process to see how far it had progressed. As a primary condition he did not know that I intended to try the experiment. He was in good health, and had performed a reasonably hard day's work. After he had become rather soundly asleep I administered chloroform by a handkerchief, holding at first about eight inches away from his face, and soon laying the handkerchief directly upon his face. There was no coughing or struggling, more than a slight movement of the arms and turning away of the head once or twice. I carried the narcosis so far that there was no wincing upon pinching or pulling the hairs, or upon touching the conjunctiva. The limbs, too, were completely relaxed. I hold that the above single experiment completely disproves the statement that chloroform narcosis can not be performed upon a sleeping man without an intervening state of consciousness. A single successful experiment like the above will at least prove the fact while five or five thousand experiments with negative results could show nothing more than a probability. Moreover, Dr. Girdner's experiments were performed upon subjects who were in an abnormal condition through disease. That narcotism from chloroform without consciousness may be accomplished is a fact, but more experiments are needed to show whether it may be accomplished upon many individuals."

IS A TENDENCY TO DEATH DURING PARTURITION HEREDITARY?—Dr. W. Henry Day writes to the "Lancet" as follows: "I was recently consulted by a young married lady, aged twenty-two, for troubles connected with the early stage of her first pregnancy. She is a fragile little body, of English parentage, but born in India. Finding on inquiry she was in the habit of staying in-doors for days together codling and reading, I tried to impress upon her the necessity of taking plenty of out-door exercise, so as to raise her physiological tone to its highest pitch, as a medical man would view with considerable anxiety the accouchement of a woman who indulged in such indolent habits,

when she volunteered the following extraordinary statement: 'My mother, grandmother, and great-grandmother all died in their first confinement.' Her mother married at seventeen and died at nineteen, three days after instrumental delivery, in India. She does not know any of the particulars of the other deaths, only the fact that each gave birth to a daughter and then died. Out of over fifteen hundred cases of midwifery I have attended, I am thankful to say I have only had two maternal deaths, and in one of them hereditary tendency seemed to be an influence at work. It is over twenty years ago now. I attended the woman in her third and fourth labors. After the last she died of puerperal mania. The husband, when he called for the certificate of death, said: 'It is a remarkable thing; both my wives died in their fourth labor, and they were sisters.'

THE "MEDICAL CHRONICLE" ON THE CODE CONTROVERSY.—The June number of the Baltimore "Medical Chronicle" says: "The fight over the code of ethics waxes hotter and hotter as the time of meeting of the American Medical Association approaches. At every State society meeting during the spring, resolutions of loyalty to the code have been passed, and the recalcitrant members of the New York State Society unanimously censured in presidential addresses. It seems to us that an unnecessary amount of denunciation of the so-called rebellion in New York has been indulged in by supporters of the code, who have, with singular unanimity, left out of view the true merits of the question. We can hardly believe that the thinking members of the profession outside of New York regard the code as so perfect an instrument that no amendment of it is possible. There is, however, very little probability of action looking to any modification of the code in the present state of professional opinion. We can only regret this, as it tends daily to widen the breach between the profession in New York and the rest of the country. The fight as it is conducted now is hardly a dignified one. There is too much suggestion of the political ward meeting in the way in which the discussion is carried on, and resolutions passed. The spirit which causes the severance of old friendships, the bitterness of partisan strife, the accusations of dishonesty in intent and practice, the threats of 'boycotting'—all are foreign to the true spirit of the profession, and should be banished at once. Can not the old wiser heads in the profession, those to whom we have all listened and heeded in the past, counsel calmness in this juncture and restore harmony to the profession throughout the country?"

THE "EPHEMERIS" ON THE RECENT ACTION OF THE ACADEMY OF MEDICINE.—Referring to the late action of the Academy in instructing its Committee on Admissions not to recommend any candidate who could not conscientiously pledge himself to support the Academy's code of ethics, the "Ephemeris of Materia Medica," a staunch supporter of the Academy's action, says: "There is nothing in the action to indicate any opposition to a member's pledging himself honestly to the existing laws, and then after admission as honestly changing his mind and then working against his signature which carried former convictions now changed."

THE ILLINOIS STATE BOARD OF HEALTH.—We learn that the board is revising its "Directory of the Institutions Granting Medical Diplomas or Licenses in the United States and Canada." Copies of the last issue are being sent to the medical colleges asking for corrections and additions, at the same time reminding the colleges that the schedule of "Minimum Requirements" as to the good standing of schools in that State is now in force.

THE ASSOCIATION FRANÇAISE POUR L'AVANCEMENT DES SCIENCES will hold its next meeting at Rouen, beginning August 16th.

SOCIETY MEETINGS FOR THE COMING WEEK.—*Tuesday, June 26th:* New York Academy of Medicine (Council); New York Dermatological Society (private); Medical Society of the County of Lewis, N. Y. (annual); Medical Society of the County of Washington, N. Y. (annual); Jersey City Pathological Society. *Wednesday, June 27th:* New York Pathological Society; New York Medico-Legal Society, Auburn (N. Y.); City Medical Association. *Thursday, June 28th:* New York Academy of Medicine (Section in Obstetrics).

Lectures and Addresses.

LECTURES ON HUMAN AUTOMATISM.

DELIVERED AT THE LOWELL INSTITUTE, BOSTON,

By WILLIAM B. CARPENTER, M.D., LL.D., F.R.S., ETC.

LECTURE V.

(Continued from page 675.)

I shall first give you one example that will show you the way in which the mind may act immediately upon a resultant previously arrived at, and without any recollection either of the idea itself or of the process by which it had been worked out. A valued friend of mine, in his early life, was an *attaché* to the British Embassy at Vienna, and was accustomed very frequently to go to the opera, where the *attachés* of the different embassies had what is called an "omnibus box" close to the stage, in which they used to meet and gossip about politics, or society, or the opera, or anything else that might be of interest to them. There had been a very sad story in the English papers in regard to a *danseuse* at one of the London theatres having been burned to death by the catching fire of her clothes from the stage-lights; and, this being discussed among those gentlemen, my friend said: "Well, now, supposing that were to happen to a *danseuse* on the stage below, I should get over *here*, and then I should put the next foot *there*, and the next foot *there*, and the next foot *there*, and I should be down on the stage directly; and I would throw my overcoat round her and put the fire out." About a fortnight or three weeks afterward my friend was there again, but with a mind entirely pre-occupied by other matters of absorbing interest to him. He was sitting, as he has told me, with his head buried beneath his hands, thinking of these matters, when a cry was raised of fire on the stage; he got down directly on the stage and put out the fire by his coat in what one might almost call the twinkling of an eye. He assured me that he had not, at the time, the slightest recollection of the former occurrence, and had acted instantaneously, without stopping to think, when suddenly aroused from his reverie by the cry. But he afterward learned from his friend that he had put his feet successively down on each of the points he had previously fixed upon.

Now, I can not but think that, although my friend had at the time no recollection whatever of having previously worked out the steps of the descent from his box to the stage, his course was really determined by the unconscious impress left by the former discussion. And I believe that our automatism, working unconsciously along the tracks laid down by a previous course of training, will often resolve difficulties which we vainly endeavor to surmount by the volitional direction of our minds to the subject; so that, as in the case of a wanted memory that will not come at call, it is often better to try the effect of leaving the puzzle to unravel itself. I have collected a great many instances of this kind in which, when a difficulty had been experi-

enced—the subject having been pursued as far as the then ability of the seeker (whether in mechanical invention, in a knotty question of logic, or other abstract science, in poetry, in music, or in working out a story) could carry it—and the matter had been laid aside for a week, a fortnight, or three weeks, the solution has presented itself quite suddenly, without any intermediate conscious thought upon the subject.

The invention of the little prism of the binocular microscope, which was made by Mr. Wenham, was the result of a process of this kind. He had thought that it was possible to construct a stereoscopic binocular on some simpler plan than the combination of three prisms which was then in use; and that the required division and recombination of the images might possibly be effected by a single prism. But he could not hit upon the form of prism that should produce the result; and, after much thought, he put the matter altogether aside for a time. His attention (he has assured me) was turned entirely to an engineering business which he was then commencing; but, coming home tired one evening, he took up "a stupid novel" by way of recreation, and while he was reading it the form of the prism which would do this work flashed into his mind. He then took his mathematical instruments and worked out on paper the angles of the prism which should give the necessary reflections; and the next morning he made his prism, and found it perfectly successful.

I believe that many of our best judgments are formed by the same automatic and unconscious process; and of this I will give you a curious example which fell within my own knowledge a few years ago. A gentleman of very considerable intelligence, with whom I had been conversing on this subject, told me that not long previously he had been requested by a lady, with whom he had for many years been in habits of intimacy, to act as her executor; to which request he acceded. On her death, which occurred soon afterward, he found himself in a position of very peculiar difficulty. She had a considerable property to leave, and no near relations, but a number of distant relatives who considered themselves to have claims upon her; and she did not herself determine how her property should be distributed among them, probably evading the question as one of difficulty and perplexity, with which, feeling her end approaching, she did not wish to be troubled, and leaving it entirely to my friend's judgment to make such a disposition of it as he might deem most fitting. He pondered a good deal over this question, being very desirous to do what was right and just all round, feeling strongly his responsibility, and knowing very well that he should disoblige some, probably all, of these expectant heirs. At last he framed a scheme which he thought was as good as he could probably make it; but still he was not satisfied with it, and very wisely put it aside for a time, with the purpose of taking it up again for reconsideration when his mind should have been refreshed by a change of subject. He gave his attention continuously to his own affairs for some two or three weeks, purposely abstaining from thinking of this matter at all; and one morning, after a sound night's sleep,

he awoke with a new plan distinctly present to his mind, of which he at once felt "this is the right thing to do." It approved itself to his judgment as so complete and satisfactory that he at once proceeded to act upon it, and has never since had reason to question the soundness of the arrangement.

I believe that in this case my friend's mind, previously trained in business habits, strongly desiring to do the right thing, and having had before it all the considerations which could lead to a correct judgment, had set his brain to work out the conclusion—just as Sir William Thomson's tide-machine calculates the tide-table for any place in accordance with the data to which it has been adjusted. At any rate, the action was both automatic and unconscious, and it seems to me a misuse of terms to call it mental.

I have had in my own experience several examples which I could narrate of the same kind, showing the advantage of what a friend of mine calls the "hanging-up" of such difficulty, and of abstaining as much as possible from the conscious direction of the mind to it—provided that we have already kept the matter sufficiently long before us, and viewed it in all its aspects. And I would recommend to you this "hanging-up," when there is time to put it in practice, as our best method of dealing with questions not only of prudential conduct, but also of what we *ought* to do in those difficult cases in which *what is* the right course is not clear to our moral sense. The trust which we may safely place in the working of this automatic process will depend upon what we may call the construction of the machine and the correctness of its adjustments. The habitual direction of our mind must have been good and judicious, and we must have aimed to look at the subject all round, giving due consideration to whatever can be said on every side. If, on the other hand, we determinately shut our minds to one set of considerations, and look only at another, our automatic judgment, like the turning of a balance, will, of course, be one-sided and worthless. I would apply the same principle to the formation of our beliefs. It has been often said that we are not responsible for our beliefs, while it is also a common saying that we can easily believe what we wish to believe. Now, I think there is truth in each of these two statements. We are not responsible for our beliefs if we really have exercised ourselves in giving due weight to all the evidentiary data by which these beliefs should be decided. Our belief in any proposition is, as it seems to me, the fitting of that proposition into our previous fabric of thought; it approves itself to our mind, we accept it as a part of our consciousness; we can not help our belief in it. But what had been the previous process? If we really desire to arrive at the truth, we look at the subject in every aspect, and give to every consideration that bears on it that weight which we may honestly believe it to deserve. We try to regard it not merely from our own point of view—which has been fixed by our own previous habits of thought—but as much as we possibly can from other people's point of view. And here, as it seems to me, is the great benefit of *discussion*, which not only supplies us with evidentiary materials which we might ourselves have overlooked, but enables us to see

how differently those evidences are appreciated by others, according to *their* previous habits of thought. It has happened to me quite recently to have found myself unable to enter into the mind of a scientific opponent until I went personally to discuss the matter with him, and to be shown by him the facts on which his conclusions were based; and I then found that, from his point of view, there was a great deal more to be said for these conclusions than I had previously been able to apprehend.

Now, when we have thus taken all the pains we can to inform ourselves thoroughly, and have freed ourselves as far as possible from any kind of self-interested bias (in which I include the pride which resists the acknowledgment of a previous error), our decision must, like the turning of a balance, be independent of our will; and thus we *are not* responsible for it. But, on the other hand, if we determinately shut our eyes to considerations which ought to have great weight with us, allowing ourselves to dwell only on those which best fit in with our previous fabric of thought, without allowing ourselves to question the soundness of the foundations of that fabric, we *are* responsible for our erroneous conclusion. You all know the story of the two knights and the shield which was golden on one side and silver on the other; one of them saw the gold side and the other the silver side, and they fought with each other until at last, having changed their relative positions, they discovered that their difference depended on their having first seen the shield from opposite sides. Now, this is the case with most of us, more or less. There are few of our beliefs in which our feelings do not come in one way or another to be interested, and thus to exert an influence on our judgment. We can scarcely help, if we have once taken a side, desiring to find that side true. The first element, then, in the formation of a sound judgment is as much as possible to dismiss all such desire. And how are we to dismiss it? By fixing our attention upon the question itself, and determinately directing it to the facts which shall show where the truth lies, rather than to our own particular view of those facts.

There are many persons who have a wonderful confidence in themselves, and can not conceive that any other view of a case can be the right one than that which they have been accustomed to entertain. Lord Macaulay was a type of this character. He would spare no pains, in writing his "History," to get at all the facts of a case—or what he deemed to be the facts. He looked more completely round it in the first instance than most persons do; though he looked, perhaps, rather too exclusively through Whig spectacles, he honestly meant to get all the information he could, and to decide upon the evidence. But, having once made up his mind upon any point, it was impossible to shake his conviction. The quantity of additional evidence that was produced to rebut two or three of his conclusions would have influenced, I believe, most other men; but Lord Macaulay believed in himself so implicitly that this evidence could not make the impression upon him that it did upon every one else. Now, I think we may take it as a fact that if we find our most assured convictions to be in discordance with those of educated and cultured

men, whom we regard as influenced equally with ourselves by an honest desire to arrive at the truth, our conclusions, though not necessarily wrong, lack the certainty that we are disposed to regard them as possessing. There must be some other mode of looking at the matter, another standpoint in which we have not placed ourselves; and we ought to open our minds to the suspicion that we may possibly, when we have taken *everything* into account, find ourselves in the wrong. Now, these are practical considerations, which I think you will see arise directly out of the consideration of this subject of automatism. The inclination of the balance is, I believe, purely automatic; but the bringing together the evidence, and the attaching more or less value to this or that evidential fact, is the part of the process over which we have a very considerable amount of volitional control. We can direct our attention to the evidential facts on our own side, to the exclusion of those facts on the other side, just as a judge who has a strong political bias (we have had plenty of cases of that kind within my own recollection, but I hope that such a bias is a thing of the past, both with ourselves and with you) has given much greater weight to the evidence on the side which he favored than to that on the other side, and would strain a legal point to admit evidence that was a little questionable on the one side, while taking every possible means of keeping out evidence on the other side. This is just what the one-sided inquirer is very apt to do. He *wishes* his belief to take a certain direction; and (unconsciously to himself, it may be) he lets his mind move in that direction, without attending to any of the signs that would indicate to disinterested bystanders that he is going wrong. And he thus makes himself responsible for any error in the conclusion at which his judgment may arrive.

The "motive powers" which give the impetus to our mental activity were to have constituted the special subject of this evening's lecture, but I have thought, on the whole, better to dwell upon the automatism of our intellectual nature, because the higher forms of these motive powers will very fitly be combined with the subject which will form the topic of the concluding lecture of this course—the automatism of our *moral* nature.

There is no necessity to dwell on the fact that the lower forms of the motive powers have their origin in our corporeal requirements, for daily experience brings it before our consciousness. The need of food and the need of oxygen constitute, from the moment of our entrance into the world, the most potent and the most constant of our springs of action; and I have shown you how those needs act as "motive powers" to our physical automatism. The need for oxygen ordinarily finds its satisfaction in the inhalation of the atmospheric air by which we are everywhere surrounded; but when the supply of that air is insufficient, the craving for it becomes more intense than the severest pangs of hunger or thirst, and may excite the strongest efforts, the most violent struggles for its relief, overcoming all sense of the equal rights of others, as those will remember who have read the fearful, never-to-be-forgotten narrative of the sufferings of the prisoners crowded together in "The Black Hole of Calcutta." The craving for food

and water requires only occasional satisfaction; and, where the supply is within reach, the physical automatism alone suffices for its introduction into the stomach. The sucking, like the breathing, of the infant is a purely "reflex" action, which may be, probably is, performed even without consciousness; but the senses soon come to act as guides to the source of food; and it becomes clear that the want of it is *felt* as a desire. During early childhood this desire is obviously more potent than any other, what the phrenologists call "alimentativeness" and "gustativeness" constituting the principal springs of action; but, as the food is provided *for* the child, and not *by* it, the desire does not directly bring into play the higher capacities of its nature. In adult life, on the other hand, the making provision for the material wants, not only of himself, but of those dependent upon him, becomes the primal object of every man who is not above the need of doing so; it shapes his plan of life, and keeps him to the steady pursuance of it by the exercise of whatever ability he may possess. And this it does without being constantly present to his mind; for, while engaged in his daily round of duties, he thinks rather of these than of the remote purpose for which he undertook them. Yet, however automatically these duties may come by habit to be performed, their course was first volitionally shaped out at the prompting of an imperious motive; and this motive asserts itself forcibly whenever the attention is called to it by any impending failure in the needful supplies. We see the exemplification of this in that primal grade of human society—which constitutes the entire community in the least civilized nations, but only the lowest stratum in those which have learned the value of the "division of labor"—that in which each family depends on the supply of food provided by its own exertions in hunting and fishing, the cultivation of the soil, or the rearing of domestic animals. What can be in stronger contrast than the sluggish life of the Orinoco Indian—for whom one day's labor (in the planting of a banana-grove) is said by Humboldt to be sufficient to provide food for the whole year, and who divides his time between sleeping and smoking—and the hardy activity of the Swiss mountaineer, who toils throughout the summer and autumn in the cultivation of his small patch of grain or potatoes for the needs of his family, and scales heights that most men would deem inaccessible to collect their scanty herbage as winter's food for his beasts, using the long hours of his enforced confinement in some kind of skillful handiwork which may enable him to procure additional comforts for his home, or educational advantages for his children? And so, in the higher grades of society, those who are born "with a silver spoon in their mouths" too often fall into habits of mere dilettanteism, while those who enter upon their career with good educational preparation for it, but without any other means of subsistence than what they can themselves earn, are (as a large experience shows) those most likely to succeed. I need not call to your minds cases so familiar to you as those of your own Presidents Lincoln and Garfield, but would rather draw my illustration from the fact well known in my reputedly aristocratic country—that many of the men who have risen to the highest eminence in the legal profes-

sion, and have thereby gained seats in our House of Lords, have begun life upon nothing, while those who go to the bar with an income that places them above the need of exertion are regarded as almost sure *not* to "get on." The autobiography of the late Lord Campbell and the biographical notices that have made us acquainted with the early years of the late Lord Justice Lush are most instructive when regarded in this aspect, showing what steady determination may do without any brilliant ability when nerved in the first instance by the "stimulus of necessity." And so it is with most of us. In proportion as our path of life is smooth and even, we tend to fall into an automatic routine; but obstacles arise which require some extraordinary exertion to surmount them; and then only do we become conscious of our real strength—that which lies in *vigorous self-determination*.

"The wise and active conquer difficulties
By daring to attempt them. Sloth and folly
Shiver and shrink at the sight of toil and danger,
And make the impossibilities they fear."

Original Communications.

THE DEVELOPMENT OF CANCER FROM NON-MALIGNANT DISEASES.*

BY DANIEL LEWIS, M. D.,

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THE frequency with which patients attribute cancer to some non-malignant disease or condition as the exciting, if not the primary cause, is familiar to every observer of such cases.

Medical literature abounds in isolated instances of such development, and my purpose is to so group them as to form reliable premises for deductions concerning the origin of cancer.

Warty growths should be named near the head of the list, on account of the frequency with which they have been observed to become cancerous. In a paper published in the "American Practitioner" for December, 1874, I gave a brief report of a case (No. I) occurring in a man, fifty-five years of age, who had a small wart on the right side of the nose, about three quarters of an inch from the angle of the eye, which had existed many years, without showing any sign of malignancy. Two years before its removal it became slightly ulcerated, without any known cause, and from that time forward it increased gradually in size until at the end of the two years it was an unmistakable epithelioma. The cervical glands were considerably enlarged. It was removed by Marsden's arsenical mucilage, and healed completely; but the patient died two years later of cancer of the left lung.

Dr. Thin relates a case, in the "Transactions of the

London Pathological Society," vol. xxx, p. 374, of rodent ulcer, which began, four years before its final removal by operation, as a little wart by the side of the nose, the lip of that side being at the same time swollen, on account of inflammation of the eye-tooth.

It increased in size very slowly, and three years after its commencement caustic was applied, which seemed to improve it at first; but it soon began to increase rapidly, and when removed, twelve months later, it was an ulcer one half-inch by an inch.

Microscopical examination of sections through the border and surface of the ulcer exhibited the usual cell arrangement of rodent ulcer.

In both of these cases there is no history of heredity, and in my own case the history is authentic for at least two generations.

The same process is noticed in the development of cancer from warts which usually marks epithelioma of the lip—viz., the formation and removal of a scab upon its surface, and the gradual development of the sore.

Sebaceous tumors often result in cancer after they have existed for long periods without showing any malignant tendency. Sometimes, when middle life is reached and the tendency to degenerative changes is at its maximum, these growths will begin to show signs of activity; some tenderness and pain, less mobility, and a thickening of the walls near the base of the tumor, are often among the first changes noted. Ulceration follows later, and the course of the disease thenceforth does not differ from that of cancer from other causes.

Injuries play an important part in other cases; and the following case, occurring in the practice of Dr. W. W. Crandall, of Andover, will furnish an excellent illustration:

A man, aged fifty-five, with a wen on the vertex, one inch and a half in its longest diameter, which had existed for a score of years or more, accidentally struck it against a sharp piece of wood, which, if I remember rightly, caused slight bleeding. Inflammation of the tumor followed, then ulceration and sloughing, which was followed, after a few weeks, by cancerous disease of the entire border and even base of the ulcer. It was finally removed by Marsden's method, and the history was published in the paper above mentioned. There was no family history of cancer.

Mr. C. Aston Key has reported a case of sebaceous tumor of the scalp ("Trans. London Path. Soc.," vol. i, p. 345) which he removed from the scalp of a lady sixty-nine years of age. The top of the tumor had sloughed, the margin of the opening assumed a cancerous character, and, after the whole tumor was removed, a quantity of glairy fluid was found at its lower portion, having all the physical appearance of colloid. Family history not mentioned.

Numerous instances are recorded in which the ordinary mole became the seat of cancerous disease.

Mr. H. Thompson reported the following case at a meeting of the London Pathological Society, November 6, 1860:

A lady, aged sixty, was subject from birth to a small black mole on the outer side of the left arm.

It became irritated in hot weather for two summers, the second time remaining red and swollen, and a melanoid

* Read before the Medical Society of the State of New York, February 7, 1883.

cancer of the size of a large nut resulted, which was attended with a large glandular tumor in the axilla of the same side.

It seems that the melanoid variety of cancer chooses the neighborhood of a congenital mole, or wart, for its development, as in the instance just related.

Mr. Pemberton, of the Birmingham General Hospital, in his work on cancer, emphasizes this point, and one of his cases is so characteristic that I will give it as he relates it:

Mrs. M. H., aged forty-five, had several congenital moles on different parts of the body, one of which was near the middle of the forearm.

Ulceration began around its edge first, and spread therefrom, leaving the mole untouched. At the end of four years, an irregular ulcer, two inches in its longest diameter, was produced, with borders elevated, dark-colored, and indurated.

The entire portion was removed by operation down to the muscles beneath, and, four years later, she remained well. There were no enlarged glands, and no history of cancer in the family.

Other varieties of cancer than the melanoid often develop in moles, however, and the same author (Pemberton) relates several cases where an irritation or slight injury of a congenital mole was followed by the encephaloid variety.

Syphilis is often the direct cause of cancer, especially when the disease appears as a chronic ulcer of the tongue. The extreme difficulty of curing these syphilitic sores by the ordinary treatment is doubtless familiar to every practitioner.

I have recently seen a syphilitic patient, who had been under treatment in hospital for several months with ulceration of the tongue, develop an affection of the parotid and sublingual glands of the same side, which was undoubtedly malignant.

Walsh ("The Nature and Treatment of Cancer," p. 155) does not admit that syphilis is a cause of cancer, and brings forward arguments against it, the chief one being that it is a rare disease among prostitutes, in whom syphilis is presumably quite common. This argument loses its force when the age of that class is considered, the average of which is much below that at which cancer most frequently occurs.

Scirrhus of the penis has been observed to spring from a syphilitic sore, and even Walsh says (p. 408): "Venereal ulcers may become complicated by carcinomatous deposition and fungate in the same manner as primary cancer." The same authority also declares that venereal warts may terminate in cancer.

It may not be out of place to mention here that cancer of the penis has been so frequently observed associated with congenital phimosis that many writers have placed it among the causes of the disease, and the retention of the natural secretions is believed to be the exciting cause. Ten patients out of twelve, treated for cancer of the penis by Hey, had either congenital or acquired phimosis.

The development of cancer of the breast, when a chronic eczema of the nipple had existed for a long time, has naturally led to the inference that they stood in the relation of cause and effect.

Mr. Henry Morris, of the Middlesex Hospital, reported two cases in the "Med.-Chirurg. Transactions" (vol. lxiii, p. 37), in one of which cases the eruption existed four years, and in the other six, before cancer was suspected. Both patients died of secondary cancer.

Mr. Thomas W. Nunn, in his recent admirable work on "Cancer of the Breast," refers to Mr. Morris's cases in connection with one observed by himself, and also furnishes the conclusions arrived at by Mr. H. T. Butlin, in a paper on the same subject.

I take the liberty of copying Mr. Butlin's propositions as Mr. Nunn gives them:

1. That a certain relation existed between the eczema of the nipple and the areola and the carcinoma of the breast.

2. That one of the first effects of the eczema was to produce proliferation of the mucous layer of the epidermis of the parts affected.

3. That in time the epithelium lining the galactophorous ducts became affected in like manner.

4. That the disease, traveling along the large ducts, reached the smaller ducts and acini, which became dilated and filled with proliferating epithelium, which was at length, so to speak, discharged into the surrounding tissues.

5. That the carcinoma thus formed was therefore essentially a disease of epithelium.

Whether we accept this theory of production, or the opposing one of Dr. Thin—that, instead of a cell proliferation, the growth is the result of a special development of colorless blood corpuscles—the fact that cancer of the breast does result from eczema of the nipple and areola seems to be pretty well established.

The development of cancer in cicatrices of various kinds, especially burns, is too well recognized to need any comment.

Simple ulcers occasionally become malignant, and two very interesting cases of that kind are at present under treatment at the New York Skin and Cancer Hospital, in the service of Dr. Bulkley.

The first is that of a woman, aged fifty-five, who fell down a flight of stairs six years ago, receiving several cuts about the face by corners of zinc covering the steps. All healed except one on the right ala nasi, which continued to discharge a little watery fluid, and occasionally form a scab over it, until within the past year and a half, when it began to increase in size quite rapidly, and now is nearly two square inches in extent, and an unmistakable epithelioma. A second one has recently developed just below the left eye, and entirely distinct from the first ulcer. The patient is positive in her statement that no cancer has ever occurred in her family.

The second case is in a man, fifty-seven years of age, who received an abrasion of the skin on the left leg thirty years ago, which healed in a few weeks. Ever since that time, however, he has often had severe itching on the site of the injury, and scratching it has abraded the skin, and quite a large ulcer has often been the result. It has not been healed for about six years; and during an attack of acute rheumatism, two years since, it began to increase in size, and, notwithstanding all the remedies applicable to such

cases have been employed for its cure, it has steadily advanced.

It is now a deep, irregular ulcer, extending from the ankle nine inches up the leg, its lateral diameter being about seven inches.

The surface is covered with irregular nodules and furrows, color dark red, and secreting a considerable watery fluid. The edges are elevated and indurated for nearly an inch from the border, and, when compressed firmly, exude a little fluid resembling pus. The entire ulcer is the seat of an almost constant burning pain, described by the patient like the sensation of having boiling water poured over it.

The man has been a coachman for thirty years, and was never sick. Even now his general appearance indicates good health. There is a bare possibility of heredity, as one brother died from some "sore" a few years ago.

An authentic case of cancer developed from an innocent ulcer is reported by Mr. Jonathan Hutchinson in the "Transactions of the London Pathological Society" (vol. viii, p. 404).

The patient was a woman, aged sixty, who had suffered from onychia of the right great toe for about eight months. It was said to have been caused by a tight shoe. When the remnants of dead nail were removed, the matrix and adjacent parts were in an inflamed and very irritable state, and resisted all efforts to heal them. The base of the ulcer became gradually thicker and more swollen, and, syphilis being suspected, iodide of potassium was administered, but without benefit.

Induration increased and pain became more severe, and of a darting, pricking character.

Enlarged glands were then discovered about the middle of the thigh, just over the large vessels where Mr. Hutchinson has several times observed the first glandular enlargement in melanosis of the foot. The glands of the groin were not affected. The toe was removed, and found to be the seat of melanotic and medullary cancer.

At that time the woman had not materially lost flesh, and was in good health, although the trouble had existed two years. Eight months later she returned with a bleeding mass of cancer in the groin, and also recurrent disease in the stump of the toe. In this case also there was no history of hereditary cancer.

Numerous cases similar to those here presented are recorded, but enough have been cited, I believe, to establish beyond question that cancer is not always the outgrowth of malignancy. In other words, in the cases here recorded there was a pre-cancerous stage, when the patient could have been cured by removing a simple sebaceous tumor or a wart—by a judicious management of an eczema of the nipple, or a lacerated wound of the face.

The importance of these practical considerations is apparent, but the chief interest of these cases, to my mind, lies in the evidence they furnish that the doctrine advanced by Mr. Hutchinson of a pre-cancerous stage in all cancer is correct.

In a paper on the "Origin of Tumors," which he presented at the last meeting of the British Medical Association, he traces similarities between inflammation and cancer,

and finally asserts that the former, by inducing a local senility of the part, may be classed among the predisposing causes of malignant disease.

The cases that I have here collected will show that the disease was invariably preceded by a local irritation, in some instances lasting many years; that some exciting cause produced an acute inflammation, and cancer was the result.

While the pre-cancerous stage is often so well marked as to be undeniable, it seems fair to assume that it may exist in every case, but, when the disease is very active, is sometimes submerged, as it were, before it is clearly recognized.

One other point deserves mention here, which is the fact that there is not a clear history of inheritance among all these cases. You will find this apparent in most of the statistics which have hitherto been published. The records of the London Cancer Hospital, as shown me through the courtesy of Dr. Marsden, are overwhelmingly against the so-called constitutional origin of cancer. Although Mr. Paget claims that the statements of patients regarding this point are not to be depended upon on this side of the argument, it is very difficult to understand why he so readily accepts the same kind of evidence when a patient declares that some near or remote relation did have a cancer.

The following propositions, based upon the clinical history of cancer, seem to be well sustained:

1. Many diseases of a non-malignant character are not only predisposing but exciting causes of cancer.
2. Such degeneration often occurs in patients who have no hereditary predisposition to cancer, and in those who are so predisposed the danger is imminent.
3. The recognition of the pre-cancerous stage of the disease is of the highest importance in its successful treatment.
4. While it is true that heredity is well attested in many cases, its importance has been greatly overestimated by all the older authorities and many writers of the present day.

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THE CLIMATIC TREATMENT OF PULMONARY CONSUMPTION; REPRESENTING THE OPINIONS OF THE PROFESSION IN REFERENCE TO CLIMATOLOGY AND CONSUMPTION.

BY J. HILGARD TYNDALE, M. D.,

NEW YORK.

(Continued from page 682.)

"After this much premising, I turn to the questions.

"1. ELEVATION."

"Question. 'Do you believe elevation to be a necessary factor?'"

"Answer. Yes, for all those who can bear it without too marked dyspnoea, and without irritability to the heart, nervous system, bronchial mucous membrane, etc. It is especially favorable for 'superficial inflammatory processes of the bronchi' (or peripheral portions of the lung), with lowered general condition, ditto 'infiltrations'; less so if com-

plicated with 'irritable heart, naso-pharyngeal, laryngeal, and bronchial mucous membranes'; and less so still according to complication with *excavation*, but more bearable if 'free down to the clavicles,'* i. e., free from pharyngitis, laryngitis, etc. The general rules I had previously given were such as these: 'The addition of rarefied air to the climatic prescription for a consumptive is *always* advisable when the same is not contraindicated for a definite cause.'

"The more an invalid is deprived of his normal breathing capacity by disease, and the more he feels obliged to remain in confined apartments, by so much are extreme elevations unsuitable for him.

"Elevation above the sea-level—location being favorable—increases such desirable attributes as stimulation, dryness, coolness, and diathermacy of the air; but, the more we increase it as a remedy for disease, the more we must qualify its use; or, the severer the disease, the less extreme should be the elevation. ('Transactions of the American Medical Association for 1879,' page 175).

"The reduced pressure of the air-column, such as exists at considerable elevations' (say four to eight thousand feet elevation at this latitude), has 'decided therapeutical effects upon the organism, independent of the purity or aseptic qualities of the atmosphere.' Of course, the unlimited amount of fresh air, and its greater and greater freedom from germs as elevation is increased, are very potent factors; the latter, I think, probably more so than the former. Yet outside of this, and accepting as conclusive Professor Tyndall's experiments as to the increasing freedom from atmospheric germs at increasing elevations, I believe there is a mechanical influence of the attenuated atmosphere which will account for no small part of the benefit consumptives receive in Colorado and such elevated sections. Especially is this so for those classes we might place under the heads of peripheral inflammatory processes and infiltrations in the lung parenchyma, and asthmatic spasms and hyperæmias in the bronchial tract. The evidences as to the size of the chest, even in childhood, of the inhabitants of great elevations, and the increase in the circumference of the chest of those of my patients who improved in Colorado, bear strongly on this question of lessened atmospheric pressure.†

"To what particular region or health-station are you in the habit of directing your patients suffering from pulmonary consumption?"

"Answer. To no particular one. I dislike boarding-houses,

etc., where consumptives congregate, passively abetting the depressing influence of their disease by their indoor life, by daily comparing symptoms, and by doing little to better themselves.

"My patients have done the best who have been able to enjoy life on a ranche, finding something to do with some genial farmer people, or living in the dry cañons among the foot-hills west of Denver. With good living insured—which is not always the case, I am sorry to say—these are the best kinds of life to lead. Among the foot-hills the facility for carrying out the 'climbing treatment' is, I think, of great advantage to many. Especially is this so for chronic interstitial pneumonias and hepatizations without softening, superficial inflammatory processes, in those with chests of deficient capacity, etc.

"In the vicinity of Fort Collins, or of Boulder, out on the plains east of Denver, both north and south of the divide, and in northern New Mexico (north of the 'Staked Plains,' or in the vicinities of Ojo Caliente, or Pagosa Springs), I have had patients do excellently well. The precise locality is not of so much account in eastern Colorado as the desirable elevation and exposure, together with the other considerations I have mentioned.

"Question. 'Do you differentiate as to summer and winter?'

"Answer. Yes. Especially for new patients, and those in whom arrest is not known to be established. As to the effect of elevation, there is a difference between summer and winter, which is equivalent to two thousand to three thousand feet. This, for summer, may be added to the suitable elevation in winter. Many of my patients do well in Estes Park, and the other mountain parks, in summer, for whom those locations would be out of the question in winter. Some of these spend the winter in Denver, and are satisfied that, better than elsewhere, they improve through the social attractions and good living to be there obtained. Others winter at Colorado Springs and Las Vegas; but there are a few on account of whom I have wished we were able more easily to send invalids to a lower and more sedative climate in winter than the conformation and extent of this Rocky Mountain region permits of doing. For those who do well, and can live here, the differentiation as to seasons is in the main impracticable; because such persons ought to settle down to do something, to be a part of some community, and have a calling to occupy their minds. It is often a difficult problem to solve, what to advise patients who have nothing themselves to do but to 'kill time,' or who are compelled to support themselves by their own limited exertions.

"Question. 'What can you say of the general results of your experience in climato-therapy?'

"Answer. I think I have said enough already. As to the comparative results obtained, I believe the system hinted at in the foregoing answers is the correct one. I refer to *individualizing each separate phthisical patient*, and differentiating his disease, with a view to determine if he can and will make the fight required to get well in proper high altitudes, and if, *for reasons found*, he ought not to resort to such a climate as that at the eastern Rocky Mountain base,

* I do not believe that the fact of there being complications or inflammatory disease of the mucous membrane "*above the clavicle*" should necessarily prevent a patient from resorting to high altitude climates. It is mainly the condition *below the clavicle* that should settle the question of climate. At the same time, I recognize that the suspicion of laryngeal phthisis, complicating serious disease in the lungs, is ominous of a fatal result, whatever climate is resorted to. Yet quite a number of my cases, who are doing as well as could be wished in Colorado, have been those who had suffered long courses of treatment by throat specialists before coming West, and before there was any definite knowledge of trouble *below the clavicle*.

† In the chapter on Altitude (pages 81 to 94, "Rocky Mountain Health-Resorts"), I have endeavored more fully to give my idea of how the proportionately increased outward pressure of the air within the lungs tends to prevent or dissipate infiltrations, hyperæmias, etc.

then to compromise on the next best climatic change possible. I believe, from my own experience, that such a system will give much better results than are obtained by many physicians who send most of their patients to warm, moist, and sedative climates. Of course, there are many difficulties; for we learn, at last, that what is an *ideal* climate for one consumptive is not so for another. There are sometimes difficulties as to diagnosis, personal idiosyncrasies of patients, pecuniary embarrassments, etc., which may amount to insurmountable barriers; but, to my mind, the fact yet remains to be gainsaid that climate is the most potent means known at the present time with which to combat this destroyer—consumption."

6. FAR INLAND (CONTINENTAL).

Moderate dryness. Prevailing temperature—cool and cold.

MINNESOTA.

Dr. Talbot Jones, St. Paul: "It is undoubtedly true that the vast majority of climatologists maintain—and they reflect the general sentiment of the profession on this question—that the more nearly a temperature approximates to equability and uniformity, the more nearly it approximates to an ideal climate for consumptives. As I can not concur in this view, it may be well to state the reasons for my dissent. Man's proximate immunity from pulmonary consumption is observed under two separate and distinct conditions of life—modifications of temperature have to do with one, degrees of altitude with the other. With regard to the first, it may be said that it is now definitely settled that the death-rate from phthisis progressively decreases from the tropics to the poles, and that proximate immunity is found in the frigid regions.

"With regard to the second, it appears, from an extensive series of data which is so convincing as now to be no longer questioned in any quarter, that the greatest death-rate from consumption occurs in localities with but slight elevation above the sea, and that this mortality steadily decreases the higher we ascend the mountain elevation, until a certain height is reached (differing according to latitude), when proximate immunity again is observed.

"Man's proximate immunity from pulmonary phthisis, then, is found only in *frigid regions* on the one hand, and at *considerable altitudes* on the other; and in neither of these positions is *equability of temperature* ever observed. Fluctuations of temperature are an invariable feature of the climate of both high altitudes and cold regions. Or, to state it differently, variations of temperature are characteristic of the climate of those localities where alone pulmonary consumption is infrequent or unknown.

"The converse rule is equally true; the maximum mortality from the disease is observed in those localities the climates of which are constant and equable, as, for example, the West India Islands, Brazil, and Sierra Leone; and Fuller (London 'Lancet') has shown that the death-rate from consumption in Spain, France, and Italy, bordering on the Mediterranean Sea, with their sedative and uniform climates, is greater than that observed in England itself with its variable atmosphere.

"The preponderance of opinion at the present time among those who are regarded as our best authorities on climatology is that a so-called *sedative* climate is too often a delusion, is in no sense curative of consumption, and that such climates should generally be avoided. With this opinion my own is in perfect accord. I base my objections to such climates partly upon clinical experience, but principally upon the following considerations (taking Nassau as an example): (a) Such resorts usually are of but slight elevation above the sea; (b) the atmosphere generally is surcharged with moisture, and fogs abound; (c) the atmosphere is not sufficiently aseptic; (d) the skin, which is a supplementary organ of the lungs in ridding the economy of effete matters, does not properly functionate in a sedative climate; (e) there is great relaxation of the muscular system, with resultant deficient bodily exercise; (f) oxidation of the tissues in such climates is reduced to a minimum, as shown by the decreased amount of carbonic-acid gas thrown off from the lungs; (g) such climates are too often hot and enervating, spoiling the appetite and depressing digestion and assimilation; (h) our chief therapeutical reliances in the arrest or cure of phthisis—oils and fats—are, in sedative climates, disgusting to patients, and can scarcely ever be taken; (i) a sedative, or hot and moist, climate can not but play the rôle, so to speak, of an internal poultice on crude tubercle, promoting its liquefaction and extrusion; (j) finally, the maximum death-rate from pulmonary consumption, both in this country and in Europe, is always observed in sedative climates. (Pollock, London 'Lancet'.)

"I favor a 'stimulating, tonic—a so-called *sthenic* climate, as found at certain far inland stations at medium or high altitude, not reached by the moisture from the ocean or large lakes—such as Minnesota, the eastern slope of the Rocky Mountains in New Mexico and Colorado. . . .'

"The 'National Board of Health Bulletin' (Washington) states that the annual death-rate per 1,000 inhabitants is 1.84 in the Northwest, with its sudden fluctuations of temperature, and 3.74 in the Southeast, with its equable and uniform temperature.

"I do not wish to be understood as claiming that man's immunity from consumption in cold and high regions is owing to the variable climate, or the great mortality observed in sedative climates to its absence; nothing could be more absurd; but I think the significance of these facts has not been dwelt upon sufficiently by systematic writers on climatology.

"The practice of recommending sedative climates to patients the subject of phthisis pulmonalis, which almost universally obtained fifteen years ago, has, within the past few years, been in a great measure abandoned, and the general sentiment of medical authors at the present time is that those resorts are best which are cool or cold, with considerable elevation above the sea. Along with these recommendations, however, and often even in the same sentence, is the requirement that the climate of such resorts shall be free from atmospheric variations.

"Now, I make the statement, with the utmost confidence in its correctness, that no resorts can be found in any zone

which are at once elevated and cold, the climate of which is uniform and equable.

"Coldness and variability of temperature are indeed interchangeable terms, as are elevation and variability. To admit the one presupposes the other.

"Hence the inconsistency of physicians' advising patients to visit resorts of moderate or great altitude, the climate of which is cold and also equable, as though such a resort could really be found.

"Yet this is done by a great many authors.

"For instance, Flint, in his 'Practice of Medicine,' speaking of the climatic treatment of pulmonary tuberculosis, says (referring to Minnesota): 'Were it consistent with the limits of this work, I could cite some cases which are strikingly illustrative of the salutary influence of the *uniform, dry, cold atmosphere* of that northern region.'

"The concurrent testimony of the salutary influence of the climates of Minnesota, Colorado, and New Mexico on pulmonary phthisis is very great; but the benefit derived is not to be attributed to a supposed uniform temperature, for it has been shown they do not possess this, but must take place, notwithstanding a variable temperature. The medical profession, I state with diffidence, must either cease recommending the climate of New Mexico, Colorado, Minnesota, and others that are cold and elevated, or they must abandon their objections to climatic variations.

"I do not wish to be understood as advocating cold climates with moderate altitude because they are subject to fluctuations of temperature, but rather as advocating them notwithstanding these fluctuations, the harmful effects of which I believe to be exaggerated.

"If a climate could be found of *moderate altitude, cold and reasonably uniform*, such a one would, in my opinion, approximate to an ideal climate for the vast majority of cases of catarrhal phthisis."

THE BICYCLE AND TRICYCLE FOR PHYSICIANS AND PATIENTS.

By CHARLES A. KINCH, M. D.

THE parade of nearly nine hundred bicycles and tricycles in New York, about a month ago, and the opening of Central Park for riding on them at certain hours of the day, turn afresh the minds of the people and the profession to the merits of these instruments.

In England and Ireland the use of the bicycle is quite common among professional men, clergymen making their parochial calls, and doctors their professional ones, by its aid. Some physicians turn their horses out to grass in the pleasant season, and others keep but one, supplementing his work by a well-selected bi- or tricycle. The number of those who use these machines in Great Britain is estimated by "tens, perhaps hundreds, of thousands" ("Brit. Med. Jour.," 1878, vol. ii), and the number in the United States and Canadas is thought to exceed twelve thousand. The League of American Wheelmen was organized in 1880, "to promote the general interests of bicycling," and its membership is being rapidly recruited—the advantage of its

store of information concerning the best roads, and the rights of wheelmen, being apparent to every one who rides.

The bicycle is a wheel supporting a saddle, upon which the rider sits erect and evenly balanced, just behind a vertical line drawn through its axis. The wheel, having cranks at the extremities of the axle, is propelled by the foot with a motion analogous to walking. The machine is guided by means of a handle-bar, about two feet in length, placed conveniently in front of the saddle, transversely to the line of motion. A small following wheel bears a part of the weight. Only when in motion can the upright position be maintained.

It is evident that the size of the wheel is limited by the length of the rider's leg. A man of average weight and height, whose "leg-measure" (from perinaeum to sole) is thirty-three inches, will ride a wheel of fifty inches diameter, or seventy-eight and one half inches half-circumference. The same man in walking will take a thirty-inch step. With every tread on the wheel he advances two and a half times as far as in walking. In walking, too, the weight is supported by the legs; on the wheel by the pelvis. The advantage of momentum is more direct in the new mode of progression. "Only during about one third part of the journey is the machine propelled by the rider's own power. On the level, the muscular exertion is almost *nil*, and on a decline absolutely *nil*—the body is resting. Hence it is left for the inclined part only of the road for real work. And here, again, if the hill be steep, the muscular power is saved, in that it is varied by a dismount and a pleasurable walk to the top" (W. W. Hardwicke, "Brit. Med. Jour.," 1882, vol. ii, p. 244). The theory is more than realized in practice. Mr. A. S. Parsons, when a beginner, wrote: "In going back and forth from my house to business, I made the distance easily in eight or nine minutes, which the fastest walking can only cover in twenty minutes, and for the first time in my life wished it was longer." "A country surgeon" ("Lancet," 1874, vol. ii, p. 145) says: "My usual pace is ten miles an hour." Mr. W. W. Hardwicke (quoted above) says: "Practical experience teaches me that I can ride from fifty to seventy miles a day, and carry a reasonable amount of luggage without much fatigue."

The bicycle has covered a mile in 2.42, and made twenty miles within an hour. ("Bicycling World Supplement," April, 1883.)

Every summer witnesses an increasing number of touring bicyclists, who, ignoring railroads and despising horses, make trips as far as to Boston and return, spending their vacations in this way. Riding at leisure, and stopping at will, they gain the most intimate acquaintance with the country they traverse and the people they meet.

Concerning the moral tendencies of bicycling, it is sufficient to say that no sport can be more antagonistic to the vice of drinking than this. For few take an interest that are not practical bicyclists. In fact, the fascination is irresistible. One must learn to ride, and riding requires a steady head. *No drunken man can maintain his balance.*

The character of the exercise which bicycling affords is well described in an article on "The Effects of Bicycling on the Health," in "Physician and Patient," April, 1880.

It is too long to quote here, but the substance is this: that "the exercise is varied and well distributed," and "taken in the open air and sunshine." It strengthens the arms and broadens the chest. It develops the muscles of the back, loins, and legs. If through too long riding, or exposure to a draught of air when heated, the rider is lame, he is lame in every part. Arms and legs and back are alike affected.

A few years ago, it was noticed in England (for they have been riding longer there than here) that many 'cyclists were afflicted with hernia. This led to the inquiry whether the exercise favored the production of this malady. Robinson has reported a case ("Lancet," 1882, vol. ii, p. 472) in which a competitor had to be lifted off his machine. The hernia was easily reduced, but he was violently sick. Very many letters were written to the "Lancet," almost unanimously expressing the opinion that it did not favor or induce rupture. Indeed, three cases of ruptured persons riding, and under the observation of qualified medical men for a considerable time, were detailed ("Lancet," 1879, vol. ii, p. 968; *ibid.*, 1882, vol. ii, p. 337.)

Racers and hill-climbers are found to suffer from varicose veins, and this subject has been discussed in the British journals. The pith of the discussion is given in the following words of Mr. John Lowe ("Brit. Med. Jour.," 1881, vol. ii, p. 144): "I deny that bicycling can produce a varicose condition of the veins of the leg without a pre-existing tendency in the man to become varicose. Given this tendency or diathesis, moderate bicycling will strengthen the coats of the veins in proportion as it improves the general health; but, the moment moderation is exceeded, an element of danger usurps the place of safety." Mr. C. W. Robinson says (*ibid.*, 1882, vol. ii, p. 472): "It is most noticeable in those who do any large amount of running or walking." Mr. Robinson also calls attention to the fact that "varicocele is made worse if the person so affected take an undue amount of exercise, but not so under any moderate amount."

Bicycling may be prescribed for many to whom horse-back riding would be advisable. The bicycle has this prime advantage over the horse, that it is not owned and operated by a separate intelligence. The machine is under the rider's perfect control. He may ride fast or slow, easily or with effort.

The accidents which befall 'cyclists are few and trifling. They occur mostly to learners and racers. An instructor in this city of much experience told the writer that he knew of but one man who had been seriously injured. He was an enthusiast, fifty years of age, who, as soon as he unboxed his new machine, mounted it at the top of an incline, contrary to instructions, and it ran away with him. Putting on the brake suddenly, he found himself several yards in front of his wheel, with multiple fracture of the forearm.

When the wheel meets with any obstruction upon the road, either unobserved by the rider or thrown by some mischievous urchin, the rider is pitched forward upon his hands and knees, in the same way as if he had stumbled while running upon his feet. This is called "taking a header." The wrist is sometimes sprained in these involuntary dismounts, but the rider is never seriously injured, unless he is going at an inordinate rate of speed.

There are machines of peculiar construction, in the use of which, it is claimed, "headers" are impossible.

The tricycle can not become popular in this country until our roads are brought more nearly to a state of uniform perfection. This consists of two wheels, side by side, between which the rider sits and propels them by a crank motion with his feet. A third, or steering wheel, is placed either in front or behind. In England they are fitted up for physicians' use with lamps, bells, pouches for drugs or instruments, and umbrella-sockets. A considerable correspondence in the "British Medical Journal," 1882, vol. i, indicated that the average speed of these machines was seven miles an hour. "At the Hammersmith Police Court" ("Brit. Med. Jour.," 1882, vol. ii, p. 825) "a Fellow of the Royal College of Surgeons appeared to answer a summons for furiously riding a tricycle, and was fined. . . . When a mounted constable has to gallop his horse to overtake a tricycle, it is obvious that the tricycle in question is going at a rate exceeding six miles an hour." Mr. Westropp writes ("Brit. Med. Jour.," 1879, vol. i, p. 795): "I can travel eight miles an hour, and can ride thirty or forty miles with enjoyment and little fatigue."

The tricycle is available for ladies. Recently a woman is reported to have traveled from Liverpool, Eng., to Newcastle and back, a distance of one hundred and two miles, in sixteen hours and a half. But more moderate use of this vehicle by ladies, whether in good health, or semi-invalid, or crippled, is to be commended. Mr. Arthur Kempe ("Brit. Med. Jour.," 1881, vol. i, p. 582) and a correspondent signing himself "Nestor" (*ibid.*, p. 539) advocate the tricycle for females to whom gentle out-door exercise would be advantageous.

The only expense of a bicycle or tricycle is its first cost. A bicycle costs from \$100 to \$160. A tricycle costs from \$135 to \$180. They are made chiefly of steel, with thick rubber tires. It requires no feeding or shoeing of horses, and is always ready.

The comfort and pleasure which well-fitted glasses give to ametropic eyes can not be told in words; no more can be revealed, to one who has not tried, the value of a machine which multiplies his locomotive powers by three, and transfers a due proportion of the work he does from his lower to his upper limbs.

256 WEST FIFTY-FOURTH STREET,
June 18, 1883.

Clinical Reports.

WOMAN'S HOSPITAL.

Reported by JAMES R. GOFFE, M. D.

(SERVICE OF DR. THOMAS ADDIS EMMET.)

LACERATION OF THE PERINÆUM AND CERVIX UTERI; OPERATION; SECONDARY HÆMORRHAGE FROM THE CERVIX.

MRS. MARY P., aged thirty-three, a native of Ireland; married fifteen years, has had seven children; the first child fourteen years ago, the last two years ago. All confinements slow and tedious; the first and last two deliveries were instrumental.

Never had a miscarriage. Has suffered since birth of the last child with pain in left side and back; has been greatly annoyed at times with frequent and painful micturition. Locomotion produces dragging pains across the lower part of the abdomen and in the back; tires easily. On examination, there was found a laceration of the perinæum down to the sphincter, a laceration of the cervix to the vaginal junction on the left side, and a chronic endo- and perimetritis. Patient entered the hospital April 15, 1882, and was put at once on hot-water treatment, with iodine applications to the vaginal wall twice a week, and glycerin pack, rest, and nourishing food. Patient improved rapidly under treatment, and the double operation, closing both cervix and perinæum, was done June 7th. There was an unusual amount of hæmorrhage from the cervix during the operation, but, after the sutures were passed, everything was considered secure and the patient was put to bed.

During the night it was discovered that the patient was having quite a profuse hæmorrhage from the vagina. Alum douches were given repeatedly, which diminished the hæmorrhage, but did not control it. The following morning there was a steady oozing of blood between the labia, and examination discovered the vagina filled with clots. The patient was blanched and weak, and evidently greatly exsanguinated. It was apparent at once that an artery was involved, and something decisive must be done. The patient was placed on the table in the Sims posture, the perineal operation taken down, leaving the wires in place, the speculum placed, the vagina cleaned, and the cervix wires removed. High in the angle of the wound was found a little spurting artery. This was controlled by passing two deep sutures well up in the angle. The operation was then completed as before, the perineal wires were twisted, and patient was put to bed. She was too weak to be anesthetized, but bore the operation well under the influence of *℥ viij* of Magendie hypodermically.

Patient progressed well till June 11th, when she had a severe chill about midday. Pulse 140, temperature 104.4°. Quinia, nourishment, and stimulants were administered regularly per rectum, and no other unfavorable symptoms occurred.

June 13th.—Pulse and temperature normal. Perineal and cervix stitches were removed, respectively, on June 17th and 24th. The secondary operation had not impaired in the least the perfect union of the parts. Patient discharged cured.

The case is instructive from the fact that nothing short of what was actually done could have controlled the hæmorrhage, the fact that the secondary operation did not interfere in the least with the healing process, and a perfect result, notwithstanding the greatly reduced condition of the patient caused by the hæmorrhage.

Book Notices.

Speech and its Defects, considered Physiologically, Pathologically, Historically, and Remedially. By SAMUEL O. L. POTTER, M. D., author of "An Index of Comparative Therapeutics," etc. Philadelphia: P. Blakiston, Son & Co., 1882. Pp. 117. [Lea Prize Thesis of Jefferson Medical College.] [Price, \$1.]

With the exception of the elaborate article by Kussmaul in von Ziemssen's "Cyclopædia," there is no really scientific and authoritative work upon this subject in the English language. The author of the book before us, therefore, has had an exceptional opportunity. He divides the subject into three principal heads—*Alalia*, *Paratalia*, and *Dyslalia*. Six pages are devoted

to a consideration of the first two, while the latter subject—stammering and stuttering—monopolizes the remainder of the book. It is practically a thesis on stammering by one who, like most students of the subject, has for years been a stammerer himself. The present reviewer, writing from the same standpoint, is glad to welcome the well-considered views and really valuable advice with which the book abounds. Leaving the introductory and historical part, and turning directly to the pathology of dyslalia, the author states that "in all forms and varieties of the disorder the essential condition present is *spasm* of a greater or less degree, which necessarily implies deranged nerve function." This spasm may occur at various points in the vocal tube, and by its continuance a spasmodic habit is acquired which, becoming more and more automatic, produces at last confirmed dyslalia, "perhaps by the resulting vicious automatism of some nerve center not yet located, which may preside over the co-ordination of the movements of speech alone." That the ordinary center for the co-ordination of muscular action is affected he does not believe.

As to the ætiology of stammering, various predisposing causes are enumerated. The chief proximate causes are: 1. Nervous excitability. 2. Debility after disease. 3. Peripheral irritation. To these are added imitation and mental expectancy. As explaining the remarkable and well-recognized fact that stammering is far more common in boys than in girls, the author holds that, in childhood, the girl is under the maternal influence, while the boy, subject to the influence of the father, is, therefore, exposed to that severity of treatment which, in his belief, is the most fruitful source of stammering. We have been at some pains to investigate the soundness of this view, and fail totally to see the truth or justice of it. The paternal influence is by no means invariably harsh, nor is the girl always under the influence of a gentle mother. Moreover, at large charitable institutions, where the children are constantly under female supervision, the same relative frequency among boys exists.

"Very few cases are incurable if the proper treatment be commenced in early or middle life, and steadily persevered in for a sufficient length of time. . . . Probably weakness of the will power is the most unfavorable symptom, as preventing sufficiently arduous application."

The course of treatment generally recommended at the present time may be summarized as: "1. Disciplinary exercise of the respiratory, vocal, and articulating organs, conducted unremittingly, until a correct habit of speech is established, and aided by the use of the utmost degree of will power of which the patient is capable. 2. Treatment directed to the correction of special symptoms and the general health while the vocal treatment is in progress." These principles are elaborated at length, and many valuable suggestions given in connection with them. An exhaustive bibliography finishes the book. Taken as a whole, the work is an earnest, sincere, and successful effort toward the relief of a distressing and much neglected class of cases, and as such we extend to it a cordial recommendation, and wish for it the success which it deserves.

Observations on Filaria Sanguinis Hominis in South Formosa.

By W. WYKEHAM MYERS, M. B., Surgeon to "David Manson Memorial" Hospital. Shanghai: printed at the Statistical Department of the Inspectorate-General of Customs, 1881. [Pamphlet.]

THE nematoid worm which was accidentally discovered in India by Lewis, in a case of chyluria (v. 6th Rep. of the Sanitary Commissioner with the Government of India; Calcutta, 1870), and which achieved much popular notoriety through Manson's subsequent observation that the mosquito acted as its

intermediate host, has presented to pathologists a perplexing problem in the sudden appearance and disappearance of its embryos in an infected person's blood, which, after swarming with them during the night, will be free from a single specimen by breakfast time, and again display them in increasing multitudes at eventide. Dr. Manson's suggestion, that the embryos may lie hidden in the lungs or some other central depot throughout the day, preparing for their nocturnal excursions into the systemic circulation, is unsatisfactory from a physical point of view, and is, moreover, based upon examinations of infected dogs, in which animals the blood parasite is at all times present, leading Lewis and Cunningham to the opinion that the canine filaria may specifically differ from that of the human subject. To settle this and other moot questions, Dr. Myers recounts a series of experiments, conducted with rather scant materials, since, notwithstanding the frequent intercommunication between Amoy, where the filaria disease prevails, and Formosa, he could find but three "filariated" persons in the latter place. Two of these, though their blood showed numerous embryos at night, were free from enlarged glands, or "any other ailment which might be attributed to filarial infection"; the third, upon whom the author's observations were chiefly made, was a man who, beyond a long-standing slight enlargement of the inguinal glands and occasional "ague" with little rise of temperature, was "in good health and doing his daily duty." Frequent inspections of this patient's blood showed that the embryos regularly made their appearance between 6 and 8 P. M., attaining their maximum number by midnight, and thence gradually decreasing until they entirely disappeared between 6 and 8 in the morning. Mosquitoes made to feed upon this man's veins were found to have digested instead of nurturing the filariæ which they extracted, and monkeys forced to drink water wherein their ova were deposited exhibited no signs of filarial infection; whence Dr. Myers infers that the Amoy mosquito is of a different species from that of the mainland, which seems to have been convicted of harboring and transmitting the parasite. It is noteworthy in this connection that Dr. Manson had already stated that the man-infecting mosquito destroyed and digested filarial embryos obtained from the dog.

From numerous microscopical examinations of blood withdrawn at short intervals from the circulation of his unique patient, the author reaches the conclusion that the embryo filariæ are dissolved after the brief preliminary stage of their life-cycle, and that the parent worm (or worms), lying-in in some convenient lymphatic gland, may give birth to fresh myriads of progeny every night. The limited field of these observations renders them of doubtful scientific value; but they are not without interest as tentative contributions to the literature of a puzzling biological question.

Syphilis. By V. CORNIL, Professor in the Faculty of Medicine of Paris, etc. Translated, with notes and additions, by J. HENRY C. SIMES, M. D., Demonstrator of Pathological Histology in the University of Pennsylvania, etc., and J. WILLIAM WHITE, M. D., Lecturer on Venereal Disease, etc., in the University of Pennsylvania, etc. Philadelphia: Henry C. Lea's Son & Co., 1882. Pp. 461.

In editing another man's book, "as in restoring works of art, there is great liability of the work being overdone.

It is a little strange that the translators of M. Cornil's book, after a lapse of less than four years since the original was written, should have deemed it necessary to increase the matter to such an extent as "to aggregate one third of the present volume." One can but suppose either that Cornil's work was singularly defective, or else that the translators have greatly

modified the author's scope and intention. The latter alternative appears to us the more tenable. It has been the editors' aim, apparently, to make the work more serviceable as a clinical text-book, to give it more the character of a general treatise. That such an aim was foreign to the author's design is evident where in his preface he says: "It is not my intention to publish a complete treatise, but only a series of lectures upon the essential points of syphilis, and particularly upon its pathological anatomy." Regarded as a contribution to the pathological anatomy of syphilis, Cornil's work is magisterial. The attempt of the editors to make the work serve as a general hand-book on syphilis, so as to compete with the numerous excellent general treatises already before the profession, we can not but regard as a mistake. A complete treatise, in which the high standard of the distinguished author was applied to every department of the subject, could scarcely be compressed within four times the space of the volume before us.

With a few exceptions, we have little fault to find with the additions that have been made, taken by themselves. As far as they go, they appear to us in the main to be judicious and valuable. Notably in connection with the differential diagnosis of syphilitic from other affections, the tabulated diagnostic points, whether original or compiled from other writers, are well stated, and for clinical instruction would be very useful. Several of the additions serve as valuable commentaries upon the text. We think, however, that most of them would have appeared better were they inserted as foot-notes, whereby the continuity of the original would have been preserved, which now, in several instances, has been sacrificed. Moreover, we can not but regard the interpolation in such a work as Cornil's of unsubstantiated theories of pathology for which the editors happen to have a predilection as in the nature of an intrusion. While a conservative allusion in a foot-note to the peculiar views of various writers would neither encumber the book nor be liable to mislead the reader, the devotion to these views of several pages of the author's text, with nothing to mark their extraneous character but small brackets at the beginning and the end, appears to us decidedly unwarrantable.

Ueber die primären chronischen Erkrankungen des willkürlichen Bewegungsapparates. Von Dr. PAUL JULIUS MÖBIUS in Leipzig. Leipzig: Georg Böhme, 1882. Pp. 16.

THE purpose of this little pamphlet is to draw attention to a group of symptoms confined to the voluntary muscular apparatus (progressive muscular atrophy), the expression of changes in the spinal cord. The pathological changes have been described under the following name:

I. Atonic progressive muscular atrophy.

a. A simple or peripheral form of progressive muscular atrophy:

1. A simple, progressive muscular atrophy of adults. 2. A hereditary progressive muscular atrophy, with or without "lipomatosis."

b. A central form of atonic progressive muscular atrophy:

1. A spinal form. 2. A bulbar form. 3. The bulbo-spinal form.

II. Spastic progressive muscular atrophy:

1. A spinal form. 2. A bulbo-spinal form.

In a pamphlet of only eleven pages it is impossible to treat the subject with any degree of satisfaction. Indeed, the author only considers the most prominent symptom connected with these pathological conditions, namely, the behavior of the muscles. A review of the pamphlet is not called for. We can only draw attention to it and to the fact that the author has been able to condense a great amount of information within a small

space. It will be of use to one who has not the time to study the subject in the larger and more thorough treatises on progressive muscular atrophy.

Physical Education; or, the Health Laws of Nature. By FELIX L. OSWALD, M.D. New York: D. Appleton & Co., 1882. Pp. 257.

THE author has produced in this a very readable book. It is semi-scientific, and somewhat after the style of Fothergill's book of about the same size, "Laws on the Maintenance of Health." The book gives directions as to diet first. The author announces himself as almost a vegetarian, considering a vegetable diet the nearest to the natural. Although his directions as to children's diet are in the main good, they give evidence of his being a theorist rather than a practical physician. The author takes pleasure on every possible occasion in having his fling at religion and its accompaniments. In fact, he is sacrilegious at times. Gymnastics and out-of-door exercise are favorably commented on. He is very skeptical on the subject of the treatment of disease by medicines. A very practical chapter on clothing, another on sleep, and one on recreation—all three contain many valuable hints. A chapter on "popular fallacies" closes the book, which is more fit for the non-medical than the medical reader. While there is much in it which might excite much adverse criticism, it contains many valuable hints.

On Asthma: its Pathology and Treatment. By HENRY HYDE SALTER, M.D., F.R.S., F.R.C.P., Physician to Charing Cross Hospital, etc. First American from the last English edition. New York: William Wood & Co., 1882. Pp. xii-284. [Wood's Library of Standard Medical Authors.]

It is hardly necessary to call the attention of the profession to Hyde Salter on asthma. Every medical student probably, during his first year, has seen or heard some reference to it. Nor is it strange, for Dr. Salter has done more, perhaps, than any one man to enlighten us on the subject. While on many points, especially in the pathology, late observations have apparently shown Dr. Salter to be in error, in the main his views are accepted. Any medical man who has studied this curious disease can not have failed to become much interested in it, and any one who has become interested in it must have read Salter. He was himself a sufferer from the disease for many years. Many of the now accepted facts in regard to the disease, particularly concerning its clinical history and treatment, were first brought out by him.

No reference is made in the book to the treatment of the paroxysm by hypodermic injections of large doses of morphine. The author has made some very interesting additions in this edition in the way of cases of uterine asthma.

At the end of the book there is a very valuable tabulated list of cases, 223 in number. We can simply say of the book, no physician can afford to be without "Hyde Salter on Asthma."

The Functions and Disorders of the Reproductive Organs in Childhood, Youth, Adult Age, and Advanced Life, considered in their Physiological, Social, and Moral Relations. By WILLIAM ACTON, M.R.C.S., late Surgeon to the Islington Dispensary, etc. Sixth edition. Philadelphia: P. Blakiston, Son & Co., 1883. Pp. xii-267.

This book is too well known to need an extended notice. Dealing as it does with a most delicate subject, the author treats it from the stand-point of the physician, as well as that of the moralist. Though there are numerous details which might well

have been omitted, judging the book from a semi-scientific stand-point, it is interesting and instructive.

The changes in the present edition are not important, and the reader still recognizes the manly tone which has always pervaded the author's works. We do not hesitate to re-echo his wish that the book "may continue to exert some good practical influence upon public health and public morals."

Congrès international de laryngologie, 1^{re} session, Milan, Septembre, 1880. Compte-Rendu publié par CHARLES LABUS, Président du Congrès, sur les procès verbaux coordonnés par le secrétaire, M. Frua. Milan: Pierre Agnelli, 1882. Pp. vii-255.

To the editor of this work belongs the credit of having originated the idea of an international congress of laryngology. No higher tributes to its success could be offered than the extraordinary number of distinguished specialists who attended, the number and importance of the papers presented, and the fact that the congress has assembled every year since. To mention the titles alone of the forty-four papers read would exceed the limits of this notice. Fortunately, the more important ones have since appeared, in one form or another, in the various journals, so that the practical knowledge brought out by the meeting has been generally distributed. The complete Report is a work of great interest and value—a worthy monument to the devotion, the energy, and the general popularity of the distinguished and much-esteemed president of the convention.

BOOKS AND PAMPHLETS RECEIVED.

Hospitals, Infirmaries, and Dispensaries: their Construction, Interior Arrangement, and Management. With descriptions of Existing Institutions and 74 Illustrations. By F. Oppert, M.D., M.R.C.P.L. Second (English) edition, revised and enlarged. London: J. & A. Churchill, 1883. Pp. xviii-1 to 278, inclusive.

Natural Cure of Consumption, Constipation, Bright's Disease, Neuralgia, Rheumatism, Colds (Fevers), etc. The Origin, Prevention, and Removal of Disease. A Manual of Hygiene for Well and Sick. By C. E. Page, M.D. New York: Fowler & Wells. 12mo, extra cloth. Pp. 278. [Price, \$1.]

Bad Elster in Sachsen. Eine Darstellung alles Wissenswerthen für Kurgäste und Freunde des Bades. Neun Briefe an einen Freund, von Dr. Hermann Helmkampff, Badearzt in Elster. Berlin: Eugen Grosser, 1883. Pp. v-72.

Medical Society of the State of Tennessee. Transactions, 1883. Fiftieth Annual Meeting. Nashville, 1883. Pp. 104-ii.

Woman's Medical College of Pennsylvania, Philadelphia. Thirty-fourth Annual Announcement, May, 1883.

The Second Annual Announcement and Catalogue of the Woman's Medical College of Baltimore, for the session 1883-'84.

One Hundredth Annual Catalogue of the Medical School (Boston) of Harvard University, 1882-'83. [Reprint from the Catalogue of the University.] Cambridge: Charles W. Sever, 1882.

New Hampshire Medical Institution. Eighty-seventh Annual Course of Lectures of the Medical Department of Dartmouth College, Hanover, N. H. Announcement for 1883.

University of the City of New York, Medical Department. Forty-third Annual Announcement of Lectures and Catalogue. Session 1883-'84.

Thirty-seventh Annual Announcement of Starling Medical College, together with Catalogue and Order of College and Hospital Exercises for the Session of 1883-'84. Columbus, Ohio,

THE
NEW YORK MEDICAL JOURNAL,
A Weekly Review of Medicine.

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Edited by
FRANK P. FOSTER, M. D.

NEW YORK, SATURDAY, JUNE 30, 1883.

RECENT MEDICAL LEGISLATION IN MICHIGAN.

THE notification of infectious diseases has been made compulsory in Michigan by an act which requires physicians to give immediate notice to the Board of Health of the occurrence of cases of small-pox, scarlet fever, diphtheria, cholera, or any other infectious disease, in their practice, like notification being required of heads of families also in regard to cases of those diseases occurring in their own family circles. Without having seen the full text of the law, we take it that the notification must come either from the physician in attendance or from the head of the family, not from both. The physician would doubtless be held responsible, however, provided one had been employed, the alternative requirement being left to apply only in the case of families that dispensed with medical attendance on the occasion. Strictly speaking, indeed, it is not the head of the family, but the householder, on whom the requirement falls; so that keepers of lodging-houses and the like are responsible for the notification of cases occurring on their premises, even in the person of a stranger.

Stringent as this requirement may seem, it is none too exacting in the interest of public protection. It is difficult to see, however, that its frequent evasion is to be prevented, for nothing would be easier than for the householder to profess ignorance as to the nature of the disease, relying, as he well might, on the general disinclination of juries to hold an accused person to strict accountability in matters involving questions of judgment. The law provides for the payment of a fee of ten cents for every such report made by a physician. While not bountiful enough to inspire too much zeal in diagnosing cases of disease to be of a character to fall within the provisions of the act, it is a recognition of the principle that no unrequited service should be exacted of a citizen.

Along with this careful provision for the notification of infectious diseases, it is to be regretted that the work of collecting, arranging, and publishing the vital statistics of the State is taken away from the Board of Health, and vested in the Secretary of State, by whom, it is to be feared, the task will be delegated to assistants incapable of anything higher than clerical work. It is difficult to set too high an estimate on the value of accurate and well-arranged vital statistics to a community, and it is equally difficult to overdraw the errors that may result from negligence or ignorance in the preparation of statistics.

The powers of health officers are made commensurate with their multifarious duties, but their compensation, we regret to see, is provided for at the niggardly rate of "not less than two

dollars a day while actually employed." What sort of service can the State of Michigan expect for this trivial remuneration? The law charges individual health officers with duties and powers demanding great discretion and no little intelligence. To look for creditable work without providing more than the paltry rate of payment we have mentioned seems exceedingly shortsighted.

The act for the regulation of the practice of medicine within the State makes it unlawful to practice without having registered at the County Clerk's office, besides which those who have not been in practice in the State for five years continuously must be graduates of some legally authorized medical college. These provisions, it will be seen, are not materially different from those in force in the State of New York. We wish we could add that they seemed at all well calculated to bring the profession up to a proper level. If anything is to shame the State of New York into enacting laws that shall protect its citizens from quackery and incompetence, it is likely to be the example of other States. Illinois having made some approach to the necessary example, it seems to us very much to be regretted that Michigan has not chosen at least to advance as far.

THE POPULAR ESTIMATE OF THE CRIMINALITY OF INDUCED ABORTION.

THE neighboring city of Philadelphia has lately been startled at a ghastly array of revelations implicating one Hathaway in a career as an abortionist almost if not quite unparalleled in the revolting annals of feticide. The cellar of a house he had occupied has been found to be paved, so to speak, with the mangled remains of fœtuses, together with those of children that were viable if not actually born alive, the theory being that the latter were murdered methodically by this octogenarian monster.

It seems to be quite by chance that the main facts have been brought to light, Hathaway's reputed wife having quarreled with him, and having in her resentment, coupled, let us hope, with something of remorse, given information to the police. The woman's story receives circumstantial confirmation in the shape of certain admissions by a son of Hathaway's, consisting largely of horrid reminiscences of the use to which the old man put the house-dog—that of wiping out the tangible evidence of his crimes by devouring the flesh of the victims.

Although the woman accuses the prisoner of having practiced his vile art upon her own person, and although the newspapers seem hopeful of proving other specific cases, the history of prosecutions for criminal abortion scarcely warrants any confident expectation that individual acts can be brought home to the man Hathaway in such a way as to insure legal punishment at all commensurate with his evident course of crime. But, even should our anticipations be happily disappointed, for what will the wretch be punished? What sentiment will guide his prosecution? It will not be horror at the abstract wickedness of abortion, if we may judge by the estimate commonly placed on that offense, but rather horror at the shocking accessory facts. We do not doubt, indeed, that the actual officers of

the law will take the case in hand with a proper appreciation of the enormity of the fundamental sin—spurred on, perhaps, but not blinded, by the side issues; our reference is to the popular sentiment, the feeling that inspires the making of laws, and that nerves judge, jury, and prosecuting attorney to their due enforcement.

The popular conception as to the criminality, or rather the sinfulness, of *abortus procuratio* is almost as varied as the individuals that make up the community, ranging from mere aversion to being “found out,” through the progressive grades of horror when the death of the woman is the result, when the foetus has shown a degree of “life” that has been manifested by independent motion, and when an actual foetus at any stage of its development has been sacrificed, up to the twinge of conscience that a few men of fine moral organization would feel at the thought that they had been at all instrumental in preventing a conception, let alone the wanton destruction of its legitimate product.

With all these distinctions, many men would—so they freely avow—recoil not from the act, whatever their idea of its sinfulness, so long as the woman who sought “help” was a dear relative, or one in whose transgression they themselves were not free from complicity. “Self-preservation,” they would complacently plead, “is the first law of nature!” While we can not deny that there are many medical men who would condone such a stifling of conscience, even if they did not lend material aid and comfort to the persons concerned, we yet regard it as one of the proudest claims of our profession upon the gratitude of all right-minded persons that, as regards the overwhelming majority of its members, it has ever, from the time of Hippocrates until now, frowned relentlessly upon all such casuistry, and spurned the tainted gold tendered as the reward of complacency.

CRIMINAL ABORTION IN POSSE.

IN the foregoing article we have hinted at a phase in which criminal abortion undoubtedly presents itself to a very few persons. We refer to the sense of criminality that a sensitive conscience would feel at having connived, however remotely, at the commission or suggestion of any act or course of conduct which, although not aimed at the destruction of a life already begun, should have been adopted with the intention of preventing that life from coming to pass.

We are quite aware that the great majority of persons, even among the reflecting and the reputedly moral part of the community, will, far from assenting to our position, look upon it as strained and transcendental. We should be surprised, indeed, to find one woman, unless educated in medicine, agreeing with us, for in this matter the ordinary conscientiousness of the sex is warped and twisted out of its symmetry by selfish considerations, unconsciously no doubt, but none the less certainly. Many a woman who in all other matters is accustomed to shape her daily life, no matter whether it involves her own temporal happiness or that of those she holds dearer than her own existence, in accordance with her earnest interpretation of the divine will,

will not hesitate to pursue the course we have indicated as wrong. Not only will she do this in simple ignorance; she will do it in spite of all the moral and hygienic arguments that can be brought to bear upon her. She seems, indeed, impetrable to reason in this regard—not deliberately sinful, but morally obtuse. Too often, to be sure, the considerations brought to her notice are wholly hygienic, and not at all moral, so that to her the matter is a mere balancing of a greater against a lesser physical ill—and for this we can not blame her. We repeat, she does not sin deliberately, but under a false moral illumination. Often, indeed, the true light breaks in upon her in her later life, and in anguish she bewails the acts which at the time of their commission she looked upon as allowable.

In spite of this tendency in human nature, we are firm in the conviction that the prevention of conception will ultimately come to be regarded as nothing more nor less than criminal abortion *in posse*. That there should be any sharp distinction between the destruction of an unborn child and the prevention of that child's existence is indeed strange. That it will soon be generally looked upon as strange we can not doubt. The Church of Rome, as our readers are doubtless aware, has never ceased to teach the sinfulness of sacrificing foetal life, no matter what the pretext; and we would point to the increasing importance that year by year is attached to the question, Is craniotomy ever justifiable? The sanctity of foetal life is continually urging itself more and more upon the attention of reflecting persons. From the destruction of life to the prevention of life is but a step.

There are indications that the time is not remote when the view we have held up will be accepted. Already it seems to have dawned upon the legislative mind, for quite lately one Hale, whose disastrous career in West Virginia we chronicle in another column, has got into the clutches of the law in Ohio for advertising a nostrum purporting to be a preventive of the continuance of gestation. One step more would make a law to punish attempts at preventing conception.

CO-OPERATION IN MEDICAL TEACHING.

THE supreme height from which a full-fledged professor is wont to look down upon his subordinates is proverbial. For what were the latter created, if not to eat crumbs in meek thankfulness? Any idea of reciprocity is seldom if ever entertained. The professor is making the assistant.

Such a state of mind is very natural, we concede; that it is altogether warranted by the actual facts is as far from the truth as could be imagined. It is not unknown to the present writer that a famous clinic has depended for its material upon a dispensary appointment held by one of the assistants. In the great majority of cases, indeed, the practical success of a clinic depends largely upon the efficient co-operation and the hearty good-will of the subordinates.

That such considerations are generally overlooked bears additional testimony to the astuteness of the faculty of the New York Polyclinic in giving a formal recognition of the importance of its assistant clinical staff by tendering them a public

dinner. It is not that we do not give the faculty in question credit for a higher impulse than that of astuteness; we really believe that they are most cordial in their tribute to the efficiency and importance of their coadjutors. For our present purpose, however, we prefer to call attention to the aspect of the matter that we have indicated.

The Polyclinic has certainly been well managed. It will not do to invoke the latent demand for the clinical instruction of graduates as the sole explanation of its successful career. In this latter half of the nineteenth century, and in this city of New York, pigs do not roam the streets already roasted, crying, "Come, eat me!" Management is necessary.

If, in the first year of its existence, the faculty of the Polyclinic has opened its eyes to the prime need of drawing its clinical assistants by the closest bonds to its aid, surely the suspicion may be entertained that the older institutions might profit by the example. The material tender of a dinner is not what we conceive to be the bond that is to strengthen the solidarity of the various gentlemen composing the working force of the Polyclinic; it is rather the underlying recognition of a principle—one that will reach deeper than might be suspected—that will clinch the interest and the pride of the clinical staff in the institution that thus shows them its appreciation. We trust that the example will not be lost upon other collegiate organizations.

MINOR PARAGRAPHS.

A LEGAL QUESTION ABOUT CEMETERIES.

THE right of the trustees of a cemetery to remove the bodies of persons interred therein, against the will of their relatives, is a matter of great public interest, and a recent decision by Judge Barrett in a case brought before the Supreme Court of this city has attracted considerable attention. The facts were as follows: The trustees of St. Patrick's Cathedral had been contemplating for some time the removal of bodies from the cemetery at the corner of Twelfth Street and First Avenue, in this city, for the purpose of selling the ground for business purposes, and were about proceeding to do so when a person, whose brother and two sisters had been buried in the cemetery between 1835 and 1842, obtained a preliminary injunction, alleging the setting apart of the ground for cemetery purposes and the payment of certain fees for interment, which, it was maintained, gave him a pecuniary interest in the matter.

The question of the authority of the Pope of Rome over church property in this country and various other matters were brought in, but the main point involved, upon the argument for an injunction against the removal of the bodies, was the extent of the powers of trustees to dispose of cemetery property. Judge Barrett held that there could be no injunction, as the trustees had the power to sell subject to the provisions of the law of 1878, and that the payment of dues or fees for interment did not give a person a right to prevent the removal of the bodies. The fact of sepulture does not necessarily render a cemetery for ever sacred to such uses, but, in case the property is sold for secular purposes, bodies can be removed and deposited in a new place of sepulture.

The law of 1878 is quite explicit on the subject, and provides that three fourths of the pew-holders of any church can legally determine the question of removal, if notice of a meeting is given two weeks in advance, and also published in a daily pa-

per. The decision of such a meeting must be properly certified, acknowledged in a manner similar to a deed, and recorded in the office of the register or clerk of the county where the cemetery is situated. When this is done, the trustees of the church can arrange for the removal of the bodies, and there can be no interference with them by the friends of deceased persons. There is great diversity in the way cemetery property has been set apart for burial purposes, and this decision does not probably apply to any cemeteries organized like Greenwood or Woodlawn.

THE NEW YORK POLYCLINIC.

THE remarkable success which has attended the first year's work of the New York Polyclinic was brought strikingly to the attention of those who had the pleasure of meeting the faculty of the institution last Saturday night, the occasion being a dinner given by them in honor of the assistant clinical staff. It appeared by the report of the secretary, Dr. John A. Wyeth, that during the year over five thousand patients had attended the clinics, and ninety-three had been visited at their homes, three hundred and eighty-two visits being made. One thousand and ninety-one prescriptions were dispensed. One hundred and sixty-one graduates in medicine attended the courses of instruction, coming from many different States and from several foreign countries.

On the occasion to which we refer, the president of the faculty, Dr. James R. Leaming, occupied the chair. Remarks were made by the Rev. Dr. Armitage in behalf of the board of directors, and by Mr. Charles Conder, the president of the dispensary connected with the institution. The toast to the Medical Press was responded to by Dr. W. M. Carpenter,⁷ of the "Medical Record," and by the editor of this journal. Dr. Paul F. Mundé spoke in behalf of the dinner committee, closing with proposing the health of Dr. Wyeth, who responded briefly, after which Dr. R. C. M. Page, Dr. C. M. Cauldwell, and Dr. A. M. Jacobus, representing the assistant clinical staff, expressed the appreciation by their corps of the compliment tendered them by the faculty.

AN UNQUALIFIED PRACTITIONER'S EXPERIENCE IN WEST VIRGINIA.

WE are informed that one "Dr." Hale, professing to be a graduate of the University of Edinburgh, lately made his appearance in Wheeling, W. Va., where he offered credentials that the State Board of Health very properly declined to recognize, including a statement that his diploma had been indorsed by the United States Medical College, an institution recently declared illegal by our courts. It seems that Hale is the promoter of a periodical styled "Health and Home," published in Portchester, N. Y., in which he bids for the degraded patronage of those who wish to avoid becoming parents, and openly argues in favor of the justifiability of foeticide. The energy of the West Virginia Board of Health proved too much for "Dr." Hale, and we are told that he left Wheeling just in time to escape arrest. The officers of the board deserve the gratitude of their State and the commendation of all conscientious citizens for their summary suppression of Hale's infamous scheme.

THE QUESTION OF TESTAMENTARY CAPACITY.

THE frequency with which contests are made over the wills of deceased persons and the expense and uncertainty attending such suits have long been evils which were exceedingly apparent but hard to remedy. An important step was taken in this State to check the increase of such litigation when the Surrogate

decided, not very long since, not to allow the costs of the unsuccessful party in a will contest to be paid out of the estate, as had been the custom before that time. Another step in the same direction has just been taken in Michigan, and the success of the plan will be awaited with much interest. A law was recently passed in the Michigan Legislature allowing a person to make his will, and then during his lifetime petition the probate court for citations to all his heirs, and such other persons as he deemed necessary to attend an examination into his sanity and testamentary capacity. If it shall appear that the person was fully competent to make a will, a decree to that effect shall be made, and the question of incapacity can not be raised again, except upon appeal from the decree. If the testator subsequently becomes insane, and dies in that condition, his will, nevertheless, can not be questioned on this ground. The contents of the will are not to be made known until the death of the testator.

THE AMERICAN SURGICAL ASSOCIATION AND THE CODE CONTROVERSY.

The following is a copy of a letter recently received by Professor Alfred C. Post, of New York :

"AMERICAN SURGICAL ASSOCIATION,

"SECRETARY'S OFFICE,

"RICHMOND, IND., June 16, 1883.

"ALFRED C. POST, M. D.,

"DEAR SIR:

"At a meeting of the American Surgical Association, held in Cincinnati, O., June 2, 1883, the following resolution was adopted :

"*Resolved*, That the secretary be instructed to address a communication to each Fellow, active or honorary, who is alleged to have violated the code of ethics adopted by the American Surgical Society [*sic*] (see Art. IX of Constitution), and request him to withdraw from this body if the allegation be true."

"This communication is therefore addressed to you because your name appears on a printed list of gentlemen, in which it is stated you are 'opposed to the present code of ethics of the American Medical Association.'

"Very respectfully, etc.,

"J. R. WEIST, Secretary,

"A. S. A."

It appears, then, that the association construes an attitude of opposition to the code as a violation thereof.

THE NEW YORK CODE IN WEST PHILADELPHIA.

So recently as the 7th of May, the West Philadelphia Medical Society took the trouble to pass resolutions which the "Philadelphia Medical Times" characterizes as "strongly condemnatory of the action of 'certain mercenary men,' in New York and elsewhere, to overthrow the present code of ethics of the American Medical Association."

THE PREHISTORIC MAN.

It is said that in some recent mining operations in the Department of Pas-de-Calais, in France, a cavern was opened containing five fossil human bodies—a man, two women, and two children. The man's body measured 10·7277 feet in length, and that of the taller of the two women 7·5538 feet. There were also *débris* of arms and utensils of petrified wood and of stone, and numerous fragments of mammals and fishes. A second subterranean chamber contained eleven human bodies of large dimensions, several animals, and a great variety of objects, including precious stones. On the walls there were designs representing combats between men and gigantic animals. A

third chamber, still larger, seemed to be empty, but it could not be entered, on account of being filled with carbonic-acid gas.

A PHYSICIAN COMPELLED TO TESTIFY AS AN EXPERT.

DR. S. T. BROOKS, of St. Johnsbury, having made a post-mortem examination of the body of a murdered man, was recently called upon at the trial to testify as to the cause of death. He refused to testify, on the ground that he could not be compelled to give testimony as an expert without remuneration. Thereupon the judge committed the doctor to jail for contempt, but after a few hours' confinement he testified and was released. The other physicians who were present at the autopsy answered that they had formed no opinion as to the cause of death, thus avoiding a collision with the court.

A PROPOSITION TO ABOLISH THE OFFICE OF CORONER IN RHODE ISLAND.

At the recent annual meeting of the Rhode Island State Medical Society a communication was received from the Newport Medical Association, inclosing a draft of a bill providing for the abolition of the office of coroner, the duties of that office to devolve upon a body of medical examiners, to be appointed from the various counties, after the manner of the plan now followed in Massachusetts. Dr. Ariel Ballou, of Woonsocket, Dr. Samuel W. Francis, of Newport, and Dr. James H. Eldredge, of East Greenwich, were appointed a committee to report upon the matter at the next meeting.

"INDUCEMENTS" FOR THE ESTABLISHMENT OF A LUNATIC ASYLUM.

A BOARD of commissioners being charged with the duty, among others, of choosing a locality for a new State lunatic asylum in Indiana, it is said that they have addressed communications to various counties in the eastern part of the State, asking what "inducements," in the way of pecuniary contributions toward defraying the expense of building the asylum, they were willing to make. It is much to the credit of Fayette County that, as we learn, its people declined to enter into any such competition.

NEWS ITEMS.

THE JOHNS HOPKINS MEDICAL SCHOOL.—According to the Baltimore "Sun," it is probable that the medical department of the Johns Hopkins University will be opened about the 1st of October. Two of the university professors, Dr. Remsen and Dr. Martin, have been assigned, respectively, to the chairs of chemistry and physiology, and Dr. Billings, of the army, has been invited to become the professor of hygiene.

THE RHODE ISLAND MEDICAL SOCIETY.—At the seventy-second annual meeting, held on Thursday of last week, the following gentlemen were elected officers: President, Dr. Job Kenyon; first vice-president, Dr. Oliver C. Wiggin; second vice-president, Dr. Horace G. Miller; secretary, Dr. George C. Hersey; treasurer, Dr. C. H. Leonard; members of the board of censors, Dr. Ariel Ballou, Dr. Otis Bullock, Dr. J. H. Eldredge, Dr. George P. Baker, Dr. J. W. C. Ely, Dr. Lloyd Morton, Dr. S. S. Keene, and Dr. Benjamin Greene.

A NEW STATE MEDICAL SOCIETY.—"Gaillard's Medical Journal" formally commends the project of a new medical society for the State of New York, rumors in regard to which have been heard in this city for some months past, its promoters being those who can not reconcile themselves to the stand taken by the present State society in the matter of ethics.

SANITATION IN CINCINNATI.—By the failure of one of the courts to appoint a health commissioner, Cincinnati is now practically destitute of a sanitary department in its city government—a state of things which the facts about a recent outbreak of small-pox ought to bring to a speedy close.

YELLOW FEVER AT VERA CRUZ.—Reports from Vera Cruz to the close of last week represent that yellow fever was raging there, especially among the American and European residents. Ten deaths from the disease are said to have occurred in the hospital in one day, and about a thousand during the preceding two months.

AN HONORARY DEGREE.—The University of the City of New York has conferred the degree of doctor of laws on Professor Alfred L. Loomis, of the Medical Department.

THE STATE ASYLUM FOR IDIOTS.—The position of superintendent of the New York State Asylum for Idiots at Syracuse, to succeed the late Dr. Wilbur, is understood to have been offered to Dr. G. A. Doren, of Columbus, Ohio.

OBITUARY NOTES.

MORITZ MICHAELIS, M. D.—Dr. Moritz Michaelis, a native of Germany, and a practitioner in New York since the year 1840, died on Saturday, the 23d inst., in the seventy-second year of his age. Dr. Michaelis received the degree of doctor in medicine from the University of Berlin in 1835. It is said that for forty years he gave his services gratuitously to one of the Hebrew charitable societies.

Proceedings of Societies.

COLLEGE OF PHYSICIANS OF PHILADELPHIA.

Meeting of March 1, 1883.

SEWER GAS, AND ITS ALLEGED CAUSATION OF TYPHOID FEVER.—Dr. GEORGE HAMILTON read the following paper:

The subject of the paper now to be presented is essentially similar to one read by the writer before the college in 1879, and reference to that paper will, from time to time, be made in regard to certain facts and statements therein contained. The opinion that sewer gas was, and continues to be, the principal cause of typhoid fever, and that all other causes combined are unequal to this single agent in the production of this disease, was opposed in that paper, as it will be in this. The views presented by Professor Frank Hastings Hamilton, of New York, in a paper on "Sewer Gas," published in the "Popular Science Monthly" for November, 1882, are essentially those accepted by an immense majority, either in or out of the profession; and, on the other hand, they are either rejected, or not accepted, as a rule, by practitioners and writers who have had the most frequent and abundant opportunities for observing the origin, development, and progress of the disease. The important question then involved in this subject can not be determined by mere numbers, but by an appeal to facts, not conjectural, because theoretical, but to such as are unrefuted, because insusceptible of refutation. The great and increasing importance, in a sanitary point of view, of several questions connected with this subject, may be regarded sufficient to justify the expression of opinions in opposition to those entertained by one so deservedly eminent in the profession as the author of the paper on sewer gas.

In support of the sewer-gas theory, Professor Hamilton declares "that the experience of every medical man, and of almost every intelligent citizen, is in accord." From an assertion in regard to medical men so sweeping as this, the writer cheerfully appeals to the page of medical history on this point; and the citizen must surely enjoy a rare degree of intelligence if he be capable of solving a problem in medicine that still remains *sub judice*. That the people in general have adopted the sewer-gas theory is beyond question; and the reasons for this are obvious. The efforts to gain over the public mind to this view have been, and continue to be, incessant, and these efforts have, in great measure, been made by physicians of enthusiastic temperament, but who, unfortunately, have had but limited opportunities to obtain a personal, practical knowledge of this subject. But, what is still more important, mankind are in general strongly disposed to accept as true that which promises pleasure, profit, and more especially health, exemption from disease, and longevity. The latter have been freely promised, provided that the sewers, and the house connections therewith, be properly constructed and kept in good condition; the filth in the streets, and every other place where it is apt to be found, be carefully removed, and disinfectants properly applied. In this way the stamping out of typhoid fever, scarlet fever, and diphtheria was confidently predicted. Here, then, was the true balm of Gilead presented to view, and is it surprising that almost every one, even the incredulous, should banish the dread that had so long held them in doubt and apprehension, and turn with wistful and confiding looks toward, and gladly accept, the proffered boon; when, too, all this was to be had by the mere expenditure of the requisite money for a certain amount of mechanical and other labor?

A most discouraging thing in this connection is found in the assertion, by Professor Hamilton and others, that, even when no sewer gas or offensive odor can be perceived, the gas, with its fatal germs, may yet pervade the residence of an occupant, while he is ignorant of any method of finding out whether or not such germs infest his home. This asserted fact is, perhaps, the key-note to the proposition, that all the ordinary or extraordinary and costly appliances now in use, and generally regarded, when kept in order, as capable of excluding sewer gas from dwellings, should be thrown aside, and that other apparatus should be erected in a detached structure, outside of the mansion. This proposition, emanating from a few sanitary engineers, is well-nigh impracticable. The plan has been tried in only a few cases, but not long enough to establish its supposed superiority. Colonel George B. Waring is quoted in the paper of Professor Hamilton as saying "that such plumbing work as is to be found in nine out of every ten houses, even in Fifth Avenue, is unsafe." What, then, must be the condition of ordinary houses, constituting the vast majority, in view of the limited pecuniary resources of their occupants? Sanitary engineer C. F. Wingate is quoted to this effect: that the constant demand for the doctor's services in so many houses in their normal bad state, and the fact that his services are no longer demanded when they have been put in sanitary condition, tells its own lesson. A lesson, to have value, the doctor forgets, must not be based upon assumed premises. From this quotation it does not appear that the apparatus was other than what is now in general use, but that it had "been put into sanitary condition," and in this he is in accord with a large majority of medical men and sanitarians. Dr. Barker, in his contribution to the paper on sewer gas, seems to deplore the fact "that of two young men, who suffered from typhoid fever, one died, and, upon examination, it was found that there was not a trap in the whole building!" But if the opinion of sanitarian Waring, and others who coincide with him, be correct, the mere existence of such

apparatus within the walls of a building serves, nine times out of ten, rather to increase than diminish the danger. The actual causation of disease, in general, is among the most obscure of medical problems; and in regard to the sickness of the Prince of Wales, cited by Professor Hamilton, and also that in the National Hotel at Washington, or that occurring during the Centennial Fair, medical opinions are not at all in accord. Professor Hamilton says "that plumbers suffer frequently"; but it has never yet been proved that they suffer more than others, although they are exposed to the action of sewer gas in its most concentrated form; and the reason why they do not suffer more, he informs us, is "that they are in most cases in the full vigor of adult life and health." The reason here assigned will, the writer is satisfied, surprise every physician who has had an extensive experience in typhoid fever, or who is familiar with the written history of this disease. From early manhood or womanhood until the thirty-fifth year is the admitted period of by far the largest number of attacks, and this holds good in several other acute maladies, notably in bilious remittent fever. In regard to this disease, the late Dr. Parrish, eminent as a citizen and a most experienced and practical physician, said to his class of students, "that if any of them became country practitioners they would find bilious remittent very prevalent and fatal as compared with the city"; and with emotion referred to his numerous consultations with country physicians within a radius of seven miles from Philadelphia, on either side of the Delaware, where he often witnessed the robust farmer, or his stalwart sons, sinking away into death, despite the efforts of the physicians. Now, that this form of disease is supplanted by the typhoid, a similar condition obtains, as may be seen, when the writer states that four cases of intestinal perforation occurred to him in the space of twelve months, while practicing in the country, thirty miles from Philadelphia. But more upon this point hereafter. Professor Hamilton also speaks of the "immunity which adults usually enjoy, and especially those who are most of the time away from home and in the open air."

On the contrary, in his country practice, the writer nearly always found that the young men who were away from their residence, at work in the fields, were more frequently attacked with typhoid fever than the females, who were generally engaged in domestic duties in or about the house; and if, as the sanitarians declare, "there is in the country houses, or the surroundings, something equivalent to sewer gas," why is it that the reverse as to sex should not be the case? Diphtheria is also said to be caused in great measure by sewer gas; why is it, then, that the most violent and fatal attacks of this malady occur in the country, sweeping off at times four, five, or six children in a single family, without a thought of sewer gas, while in cities, with sewer gas almost everywhere, the proportionate mortality is much less? Notwithstanding the testimony of Dr. Alfred Carpenter, of London, as quoted by the author of "Sewer Gas," to show the causation of scarlatina by this agent, here again such testimony is confronted by facts similar to those adduced in regard to diphtheria. It is only a few months since scarlet fever appeared in a town in Pennsylvania, noted for its cleanliness, and occasioned a proportionate degree of mortality unknown in Philadelphia. We now come to a singular and very important statement in the paper on "Sewer Gas," namely, "that in Asiatic cities, where modern improvements in plumbing are unknown, typhoid fever, diphtheria, and scarlet fever are seldom seen, while with us they have increased, as some declare, just in proportion to the extension of these improvements."

After this comes the admission of Dr. O. C. De Wolf, Commissioner of Health for Chicago, "that water-traps, as at present constructed, do not prevent the passage of disease-germs

into our houses." Dr. Andrews is quoted by Professor Hamilton essentially as follows: "Canton is a city of bad smells; it has no water-closets or connection with sewers, and its *unsanitary* condition is unquestionable; yet there is rarely any typhoid fever or diphtheria." And he expresses his belief "that water-closets tend to propagate these diseases instead of preventing them." Professor Hamilton declares "that the several classes of professional experts seem to have lost confidence in each other, and are heard constantly charging one another with incapacity." The chemists apparently are not agreed, the plumbers are charged with incompetency, and they, in turn, regard the physicians as their "most wrong-headed customers," possessing only a "dangerous smattering" of knowledge upon this subject. An architect has complained "that men of his calling have been blackguarded, lectured, and blamed by eminent doctors for their supposed ignorance of matters of this sort"; and a sanitary engineer has said, publicly, "that there was probably only one architect in the city competent to execute the specifications for the plumbing of large houses," while a distinguished member of the National Board of Health said, publicly, "that he could count upon his five fingers all the sanitary engineers in this country in whom he could place any degree of confidence." If only the half of what has just been said be true, how embarrassing must be the condition of the public, and how greatly will be augmented the alarm, already so unnecessarily excited! and, in view of what has now been stated, may it not be thought that the motives thereto have not always been of a benevolent and purely unselfish character?

It is now time to confront the popular opinion that typhoid fever, diphtheria, and scarlet fever are caused by sewer gas, and that to a degree unequaled by all other alleged causes combined. In attempting to do this, such cases as the following will be completely ignored: Mr. A., on returning from his summer tour, perceived, distinctly, the smell of sewer gas in his house, and fell sick on the third day with typhoid fever. What can be said against sewer gas in this case? it may be asked. In answer, it may be said that while, by a bare possibility, the gas was the cause of the disease, the probabilities are all the other way. In the first place, the period of incubation is from eight to twelve days; in the second place, the writer's experience has convinced him that in not more than one house out of five has any smell or sign of sewer gas been detected, either before or during an attack of typhoid fever. And again, if the opinion lately advanced by a few of the most eminent authorities—that, as at present constructed and placed within the dwelling, the apparatus is incapable of excluding the gas—is correct, then, in such a city as Philadelphia or New York, many thousands more must be added to the tens of thousands of houses said long ago by the alarmists to be infected with sewer gas. In this connection it may further be stated that, if the dwellings of this city and those of New York are infected to the extent asserted, then the conclusion is inevitable that the mortality would be absolutely frightful, and yet in some weeks, in our city and in New York, with, taken together, about three millions of people, the deaths have been down to two, three, or four, while diphtheria, caused, as sanitarians and inexperienced physicians say, by the same sewer gas, has at this identical time occasioned, weekly, the death of about thirty or forty persons. In the third place, it is well known that many individuals, on returning from the country to their homes in the city, in a very few days, before the period of incubation has expired, have had attacks of typhoid fever, and such cases may fairly be regarded as having had their origin in the country.

Another instance of typhoid fever is this: A complaint was made to the Board of Health that a stagnant pond upon the outskirts of the city had already caused two persons to fall sick

with fever. The pond was, by order, filled up, the patients recovered, and no others were attacked! Could anything, many would ask, be clearer than the exciting cause of these attacks? That a vast majority would regard the cause assigned as the true one need not be doubted; but it is not to be forgotten that a large majority of people are by nature credulous, and, as a rule, the credulous are not logical, and the faith of such persons, as Goethe and Richter have said, is a matter of feeling, affection, aversion, rather than of reason, as the following example, in relation to that just quoted, may serve to illustrate. Into the family of a wealthy farmer, a few miles distant from the ill-conditioned pond alluded to, typhoid fever entered at about the same time as in the former case; several of the members were attacked, and, as in the former instance, all recovered. There was no stagnant pond here to complain of; on the contrary, the farm lay in a beautiful elevated section of the country, was in all respects a model farm, the agriculture, domestic and general economy exceptionally good; yet all this, as the writer had often seen in his rural practice, occurred without the agency of sewer gas or (apparently) any other one of the agents so commonly held responsible for these attacks.

The writer is well aware that the points maintained in opposition to the current views as to the origin of typhoid fever are not accepted by a very large proportion of medical men and sanitarians; but it should be remembered that, by the reports of the Board of Health of Philadelphia, there have been on an average weekly, for the last ten or twelve years, but seven to eight deaths; hence, it is evident that, with all the alarm in regard to typhoid fever, there has not been opportunity for one half of the regular physicians of this city to become fully acquainted with the disease, in its various forms and aspects. In every instance, however, when the writer has inquired of any one who had practiced extensively, both in town and country, the "answer" has been nearly always that the disease, when it appears in the country, is infinitely more prevalent and fatal than in the city, and that, as a rule, it was impossible to discover whence it originated. But on this point let us turn to an eminent authority—Trousseau, that great medical light of the nineteenth century. After speaking of the great difficulty of discovering the intimate causation of disease in general, and of the great advantages of the practitioner in rural districts in regard to this point, he declares "that the ordinary causes given in explanation of the origin of typhoid fever are trivial (*banal*), and deserve no serious consideration."

Trousseau did not rashly, as often happens, declare his opinions on this point. His opportunities for the study of typhoid fever in Paris were abundant, yet he was not satisfied with these, knowing, as he did, that the rural practitioner, having personal intercourse with nearly every family within a limited range, and consequently having superior advantages for observing the first outbreak and the progress of disease, would be most capable of arriving at a knowledge of its origin, whether from local or general agencies, or from contagion. To this source of information he often resorted, either by letter or personal interviews; and, endued as he was with an eloquence brilliant and comprehensive, a marvelous power of observation, and logical acumen, it is not strange that in life he was, and yet remains, in the first rank of philosophic medical authorities.

In illustration of the above statement, my own experience may here be alluded to. Leaving Philadelphia in the autumn of 1834, a location was chosen at the distance of thirty miles from the city, between Wilmington and Kennet Square, seven miles distant from either, and about eleven from West Chester. The surrounding country was hilly, abounding in springs of fine water. Bilious remittent and intermittent fevers prevailed at this time, and for a few years after, in Philadelphia, to an ex-

tent that has not since occurred. The remittent form only held possession of this rural section, and before the frost of November put an end to the disease, as it always did, the statement of Dr. Joseph Parrish in regard to its prevalence and fatality in the country was fully confirmed in my own experience. After five or six years, bilious remittent was supplanted by typhoid fever, and it would be inexcusable did the writer neglect to cite two or three instances of this malady, of marked importance in relation to its origin and development. A wealthy farmer had sent a son on business into Maryland, forty miles from his residence. After an absence of several weeks he was brought home affected with typhoid fever, and, in succession, the father, two other sons, two daughters, and a colored servant were attacked, all severely except the servant, the mother alone escaping the disease. An attendance lasting four months was required, and, although three of the patients were in great danger, all recovered. In another family of seven persons, four were prostrated, one, a young man of eighteen years, dying from perforation. In this instance, again, the disease did not originate on the premises. The mother, the first attacked, had been absent from home assisting to nurse a relative, at a distance of several miles from her own residence, to which she was brought unwell, and thus communicated the disease to the others. Many physicians, perhaps all professed sanitarians, are in the habit of expatiating upon the great and unnecessary prevalence of what they call filth diseases—typhoid fever, scarlet fever, and diphtheria—in large cities, and seem indisposed to turn their attention to the country until reminded, from time to time, of the ravages of these same diseases in rural sections, greatly exceeding, in proportionate number of cases, violence, and fatality, what is to be found in cities. Yet the sanitarian, or the inexperienced practitioner, fertile in expedients, soon discovers the sources of their origin in decomposed vegetable matter in cellars and elsewhere, or in water and milk contaminated by the requisite family out-house, while the attending physician, though upon the spot, can not, unless in exceptional cases, find any rational ground for these necessitated conjectures. But, in this connection, let us revert to the condition of agriculture and husbandry in regard to household, dairy, and stable economy half a century ago. At this period agricultural journals, or other works pertaining to those subjects, were scarcely known, while, for very many years past, they have been disseminated over the land, throwing a flood of light upon all that concerns agriculture and husbandry, the good effects of which are now visible on every side. It might here rationally be asked, What was the state of the country at the early period named, and was there not much more typhoid fever than has since occurred? On the contrary, typhoid fever, and also diphtheria, were almost unknown at that time, while bilious remittent, not generally regarded as a filth disease, prevailed, and so continued until about five years before the return of the writer to Philadelphia in 1845. As before intimated, a sharp frost or two would arrest the progress of bilious fever; not so in regard to typhoid; on the contrary, one of the worst invasions of the disease continued throughout the winter and early spring, and this peculiar and important feature finds its counterpart, not seldom, in this and other cities, where, independent of the agencies of warmth and moisture in promoting the decomposition of animal and vegetable matters, and evolution of gas, the disease has prevailed in an aggravated form.

In the writer's experience it did not often happen that either typhoid or remittent fever prevailed extensively in two consecutive years. In this respect it resembled dysentery, raging with a fatality this year unseen in the city, while during the following season very few cases would appear—the local conditions in either case presenting no perceptible change.

AMERICAN NEUROLOGICAL ASSOCIATION.*

(Concluded from page 692.)

Second Day—Thursday, June 21st.

The meeting was called to order by the president, Dr. ROBERT T. EDES, of Boston.

ELECTION OF A NEW MEMBER.—Dr. RALPH L. PARSONS, of Sing Sing, N. Y., was elected a member of the association.

THE EXCRETION OF PHOSPHATES OR PHOSPHORIC ACID AS CONNECTED WITH MENTAL LABOR.—The PRESIDENT read a paper on this subject in which he referred to the generally accepted statement that mental labor increased the amount of phosphates in the urine. It was difficult to determine exactly what hard mental labor consisted in, each individual viewing the question from a personal standpoint. It might be considered that, when one felt himself to be putting forth special mental effort, although to another person the task might be quite easy, he was doing so in fact.

The President's conclusions in regard to the effect of mental exertion on the excretion of phosphorus had been drawn from experiments upon himself, which consisted in measurements of the quantity of phosphates in the urine shortly after, and in some instances several hours after, lecturing and being engaged in other mental labor, and also after a period of leisure. To avoid liability to error, in a few cases the urine secreted during the same night was also examined. In nearly every instance the amount of phosphorus was less in the urine passed after a period of mental labor than in that passed after a period of mental repose. This was due, perhaps, to the fact that the quantity of urine secreted was also found to be less. His experiments had not determined that the amount of phosphorus metamorphosis within the brain was not increased during mental labor, but they had shown that the increase, if any, was not sufficient to be apparent when measured with the entire quantity arising from changes taking place in all the tissues of the body; no more so, indeed, than would a slight rain at the head of the Mississippi become apparent at its mouth by the rise in its waters.

Dr. MILES, of Baltimore, asked whether it was known that phosphorus existed in the nerve cells themselves, the part of the nervous structure which was active during mental labor, whether it was not in fact confined to the substance of Schwann, or the inactive part. The opinion of those present seemed generally to be that the oft-quoted statement that mental labor increased the amount of phosphorus in the urine was fanciful, and not supported by experimental observation.

The paper was also discussed by Dr. PUTNAM, of Boston; Dr. MORTON, of New York; and Dr. JEWELL, of Chicago.

Dr. S. G. WEBBER, of Boston, reported some CASES OF LOCOMOTOR ATAXIA WITH UNUSUAL SYMPTOMS AND MARKED REMISSIONS IN THEIR COURSE.—The first case was one in which there was severe gastric disturbance, consisting in flatulence attended by extreme pain. The second was interesting from restriction of the respiration. The third was characterized by diabetes.

* In our report of the first day's proceedings, in the last number of the journal, the following corrections should be made: The case mentioned by Dr. Weber (p. 692, first column, third line from the bottom) was one of *lepto-meningitis*, not "*polio-myelitis*." In Dr. Spitzka's remarks (p. 692, second column), instead of "while nothing could be more remote than the lumbar enlargement of the cord from the tendon-reflex area and the speech centers, unless it were the *frænum terminale* from the olfactory bulb," read: *While nothing could be more remote than the lumbar enlargement of the cord and the tendon-reflex area from the speech centers, unless it were the filum terminale from the olfactory bulb.*
—REPORTER.

The fourth was marked by deafness without any aural lesion being found. In the remaining cases the patellar reflex either was not lost or had returned. In the last three cases of the eight reported, the patients seemed to have been cured of the locomotor ataxia. The prognosis was more favorable in the cases in which the symptoms developed rapidly.

The paper was discussed by Dr. MORTON and Dr. W. A. HAMMOND, of New York.

Dr. R. W. AMIDON, of New York, presented a CASE OF TETANOID PARAPLEGIA OCCURRING IN A CHILD, the tetanoid manifestations being preceded by a train of symptoms indicating subacute hydrocephalus. He asked whether the central trouble might not account for the tetanoid symptoms by causing descending changes in the spinal cord.

Dr. AMIDON also presented two ANOMALOUS CASES OF PARKINSON'S DISEASE, the peculiarity consisting in the entire absence of tremor; all the other symptoms of paralysis agitans were present.

The paper was discussed by Dr. MORTON and Dr. DANA, of New York; and Dr. PUTNAM, of Boston.

Dr. V. P. GIBNEY, of New York, presented a patient in illustration of PROGRESSIVE MUSCULAR ATROPHY with marked fibrillary twitchings, and also a patient with fibrillary twitchings following a gunshot wound.

AN APPARATUS FOR TREATING SCRIVENER'S PALSY was the title of a paper read by Dr. W. J. MORTON, of New York. While writer's cramp was not a fatal disease, there were few diseases of the nervous system less curable and more disastrous to the patient's occupation. Better results had been obtained, in his experience, by stretching the muscles than by the use of any form of electricity. Wolff's method of treatment by active and passive exercise of the affected muscles had not proved so successful at the hands of others. He thought the benefit derived by Wolff's method was due to stretching of the muscles, but was of the opinion that it was no more permanent than when the same method was adopted in contractures due to central lesions. Reference was made to the treatment devised by Nussbaum. This method was more simply carried out in the following manner: A thimble was worn on the index finger, consisting of very light elastic metal, split from end to end, clasping the finger entirely; a light elastic rubber band was slipped over the thumb and finger, offering a slight resistance to extension and abduction; to the end of the thimble the pen was attached. The patient thus wrote by movements at the shoulder, those of flexion and abduction being restrained at the fingers.

The paper was discussed by Dr. PUTNAM, Dr. WEBBER, Dr. WALTON, and Dr. DANA.

THE INSANE OF SPAIN AND THEIR ASYLUMS, a communication from Dr. E. C. SEGUIN, was read by title.

Friday—Third Day.

A CASE OF LOCOMOTOR ATAXIA.—The case was narrated by Dr. G. M. HAMMOND, of New York. The patient was a young man, who, about ten years ago, came under the care of Dr. Anderson, with a lesion of the glans penis. It was not known whether the lesion was a chaneroid or a chancre. Secondary symptoms did not manifest themselves. The patient had two children perfectly healthy. He had been a drinker for several years, and in the winter of 1882 got on a spree, after which he had an attack of delirium tremens. Following the attack of delirium tremens the symptoms of ataxia were fully developed; but the patient said that, for about six months before, he had felt sharp pains down the legs, and a little difficulty in walking. There were now all the regular symptoms of locomotor ataxia: inability to stand without support, with the eyes closed or open; ataxic walk; anesthesia; absence of tendon reflex. The arms

were similarly affected. There was no paralysis of the bladder, but there was partial loss of sight and defective memory. Dr. Anderson administered iodide of potassium and corrosive sublimate. The patient was sent to Dr. Hammond, who applied the actual cautery to the spine, and faradaic and galvanic electricity. From this time the patient began to improve, and at the present time was apparently in normal health; he walked perfectly, could jump on to a car while in motion, and could stand with the eyes closed; tickling of the feet was felt distinctly, and tendon reflex had partially returned. This was the only case in which Dr. Hammond had known the tendon reflex to return even partially.

Dr. W. A. HAMMOND said that this might be the only case on record in which tendon reflex had returned, but during the past ten months he had treated a similar case in which the tendon reflex had markedly returned, especially in one knee, and most of the ataxic symptoms had disappeared.

Dr. PUTNAM said that one or more cases had been reported by Baerker in which tendon reflex had returned. Schuster had reported a case, also seen by Erb, in which the patient recovered from the ataxic symptoms, and in which, after death, characteristic lesions of locomotor ataxia were found.

The paper was further discussed by Dr. MILES.

NUTRITIVE ALTERATION OF THE HAND FROM THE PRESSURE OF A DISLOCATED HUMERUS IN THE AXILLA.—Dr. F. T. MILES, of Baltimore, read a paper in which he gave the history of the case of a man fifty years of age who, two years before, fell and injured his shoulder, and afterward suffered extreme pain down the corresponding arm to the fingers, which he was unable to move. He was confined to the house during five months. The severest pain was located in the shoulder. The surgeon then found an unreduced luxation of the humerus into the axilla. There was great deformity of the ring and little fingers, and the skin was pale and presented a glazed appearance. The fingers could be moved but slightly, and movement at the wrist joint was limited. Touching a finger caused the arm to jerk away in a peculiar manner, but not from pain. The author believed that physicians were inclined to stick too close to custom in always looking for a particular set of symptoms, such as pain, thickened nerve, etc., in any supposed case of neuritis; that the foregoing case, and others which he narrated, illustrated the fact that there might be other changes present, due to an affection of the sensory, motor, and trophic nerves, than the subjective symptoms referred to; and that the symptoms varied greatly in different cases.

THE BRAIN OF THE CAT LACKING THE CALLOSUM.—Dr. BURT G. WILDER, of Ithaca, N. Y., presented photographs, together with a specimen, which had been removed from a cat that had shown no peculiarity, so far as was known in 1879. He would some time in the future dissect the specimen for more minute study. In reply to a question by Dr. Morton, he said that what effect absence, or partial absence, of the callosum in man would have upon his character had not been determined exactly by observation. In one case it was only noted that the man, a soldier, had been quarrelsome and dirty.

The paper was discussed by Dr. W. A. HAMMOND, Dr. PUTNAM, Dr. MORTON, and Dr. MILES.

ON THE ALLEGED HOMOLOGY OF THE CARNIVORAL FISSURA CRUCIATA WITH THE PRIMATIAL FISSURA CENTRALIS.—This was the title of another paper read by Dr. WILDER. The author quoted various writers, showing that the terms correspondence, analogy, and homology in relation to the cerebral fissures and convolutions were not properly distinguished from each other; and that a difference of opinion existed as to what fissures and convolutions of the brain in the cat, in the monkey, and in man should be considered homologous. Parts which might be con-

sidered apparently homologous from an anatomical point of view might not be so physiologically. It was important, first, to determine homologous parts in man and the monkey; and, second, in the cat and the seal, and after this we might hope to determine homologous parts in the more distantly related species, man and the cat.

Dr. BIRDSALL thought it would be difficult to say that parts apparently homologous anatomically were so physiologically.

Dr. W. A. HAMMOND said that the same cerebral lesion in two men would be followed by different physiological symptoms; injury to the third frontal convolution in one individual would cause loss of speech; in another it did not produce any such result. It would readily be seen, therefore, what difficulties would attend attempts to determine homologous cerebral parts in man and the carnivora.

The paper was further discussed by Dr. MILLS and the author.

ON THE TREATMENT OF MIGRAINE was the title of a paper read by Dr. W. J. MORTON, of New York. The object of the paper was to call attention to a more systematic treatment of the affection than was generally adopted. Two types of migraine were described, the one spastic and the other paralytic, depending, respectively, upon contraction or dilatation of the blood-vessels, through the influence of the vaso-motor nerves. In the treatment of the spastic form, the bromides were specially effective, the bromide of sodium in general being preferred, because so much better borne than the potassium salt, as determined by the experiments of Ringer. Sixty grains administered at the beginning of an attack, and, if necessary, repeated in an hour, would usually abort the attack. Nitrite of amyl and nitro-glycerin were often very beneficial, the latter being preferable because more permanent in its action. It should be given after meals, in order to avoid uncertain effects due to possible decomposition in an alkaline stomach. In the paralytic type strychnine was recommended, but ergot was the most useful in aborting the attack, and causing contraction of the vessels. The medicine should be continued afterward. It might be given by the mouth or hypodermically. Cauterization and methodical applications of electricity were also beneficial.

Dr. W. A. HAMMOND had found strychnine even more valuable than ergot. He accepted Dr. Morton's division into the spastic and paralytic types. He asked Dr. Morton how he would treat a case in which there was the spastic variety upon one side and the paralytic upon the other, of which he had seen two examples, which he had been unable to treat successfully.

Dr. J. L. CORNING, of New York, referred to treatment by compression of the carotids.

Dr. WILDER had found compression of the carotids a successful method of checking the pain of migraine in his own case. He mentioned the fact that he once had toothache in which severe pain occurred only with every other pulsation.

Dr. HAMMOND thought this probably explained by the fact that the alternate pulsations were the stronger.

Dr. C. L. DANA, of New York, did not believe that it was always possible to divide migraine into the two classes of cases mentioned, or that the exact nature of the case could always be determined. He had given decided benefit by frequently repeated small doses of cannabis indica.

The PRESIDENT agreed with the first statement made by Dr. Dana, and said that he was unable to determine which form, the spastic or the paralytic, he had suffered from for a number of years. The attacks were aborted by a two-drachm dose of bromide of potassium taken on going to bed. Caffeine was beneficial in certain forms of headache.

The paper was also discussed by Dr. PUTNAM and Dr. MILLS. Dr. W. R. BIRDSALL, of New York, made some remarks upon

the RELATION OF SYPHILIS TO LOCOMOTOR ATAXIA, quoting the tables of several authors, in which, out of a total of 525 cases of locomotor ataxia, there was a history of syphilis in 225 cases, or 43 per cent. His own statistics, taken from the records at Dr. Seguin's clinic at the College of Physicians and Surgeons, and his own clinic and that of Dr. Seguin at the Manhattan Eye and Ear Hospital, showed a positive history of syphilis in but four cases out of forty-two. He therefore could not believe with Erb that locomotor ataxia always followed syphilitic disease. Dr. Birdsall also presented an electrical instrument.

Dr. MILLS said that his experience had certainly been very strongly opposed to that of Erb, which went to show an invariable relation of locomotor ataxia to syphilis.

GALVANIZATION OF THE BRAIN AND ITS VALUE IN THE TREATMENT OF CHOREA.—Dr. C. L. DANA, of New York, read a paper with this title. The effects of galvanization of the brain were classed as subjective and objective. The author then described the subjective and the objective symptoms produced by galvanization of the brain of man and of animals, in health and in disease. It was concluded that anodal electricity applied to the brain had a sedative action, retarded the circulation, and produced a beneficial result in chorea. Eight patients, and others of whose cases he had not kept notes, had been cured by the use of the anodal pole, alone or in conjunction with the use of arsenic. At first the improvement in the symptoms seemed to pass away, as felt by the patient, after twenty-four hours. When continued, a cure was effected on an average within twenty-five days, whereas with arsenic alone the average duration in thirty cases had been six weeks. He believed that the direct effects of the current were obtained. His conclusions as to the treatment of chorea in this manner were supported by Berger and Erb.

Dr. CORNING had obtained beneficial results in chorea by the use of galvanism in connection with arsenic, and also galvanism and cold in connection with arsenic. The latter treatment—that of galvanism with cold—was particularly satisfactory in the treatment of headache.

Dr. MILLS thought the action of the current was reflex, not direct, as used by Dr. Dana.

Dr. WEBER thought that, if the beneficial results were not obtained except when arsenic was given at the same time that galvanism was employed, they could very properly be attributed to the action of the arsenic.

The paper was further discussed by Dr. BIRDSALL, the Author, and Dr. MORTON, who alluded to some uncertainties attending the use of anodal electricity, as had been recently pointed out. He suggested the possibility of taking advantage of the anæsthetic state produced in some patients by the electrical current for the performance of surgical operations.

ON THE REMOVAL AND PRESERVATION OF THE HUMAN BRAIN.—Dr. WILDER read a paper in which he spoke of the importance of preserving the brain without the least injury to its parts, and in a perfect state. The skull of the new-born, and of young cats and dogs, could be removed by side-cutting nippers. In older calvaria, before the circular incision was quite completed by the saw, a longitudinal division should be made a little to one side of the line of the longitudinal fissure, and the smaller section of the calvaria be removed; and, before proceeding to remove the larger section, the dura mater should be loosened in the median line by the bent point of a shoemaker's knife. During removal of the brain from the base of the skull, it should be supported in strong brine. To preserve the brain perfectly, alcohol, in a weak dilution at first, should be passed through the carotids constantly for several days, by siphon pressure. The ventricles of the brain should be kept distended by frequent injections of diluted alcohol. It was un-

necessary to preserve the entire brain except for special purposes. He employed alcohol alone. That this agent was the best for histological specimens, he could not say. The method was specially of advantage to those making preparations for museums.

Dr. MILLS had found it of advantage in many instances to leave the dura mater attached to the calvaria.

Dr. E. C. SPITZKA, of New York, removed a posterior section of the calvaria, also including the posterior part of three or more of the cervical vertebræ. The brain could then be removed, dividing its attachments from behind forward. Alcohol was not a fit agent in which to preserve specimens for microscopical examination.

Dr. MILES described an instrument for retaining the head in any desired position during the removal of the calvaria.

Dr. WILDER then read a portion of a paper on SOME POINTS IN THE ANATOMY OF THE HUMAN BRAIN.

The remaining papers—one by Dr. LEONARD WEBER ON THE NEUROTIC ORIGIN OF ARTHRITIS DEFORMANS, and one by Dr. WALTON—were considered as having been read by title, and the association adjourned, to meet next year at a place and time to be determined upon by the Council.

NEW YORK MEDICAL AND SURGICAL SOCIETY.

A STATED meeting was held January 13, 1883, Dr. C. R. AGNEW Chairman for the evening.

ENDARTERITIS OBLITERANS; MOTOR PARALYSIS AND DEATH FROM A SMALL CEREBRAL LESION.—Dr. FRANCIS DELAFIELD reported the following case: A man about thirty years of age had been in good health until the 11th of November, 1882. On the afternoon of that day he had a severe headache, which became worse, and in the evening he grew stupid, almost comatose. The condition of stupor continued, and on the next day there was complete motor paralysis of the left leg, arm, and side of the face; sensation remained. After two or three days the intelligence began slowly to return, and the patient's whole condition gradually improved, so that by the 16th of November he was able with assistance to walk a short distance. On the 16th, however, he had a relapse, the mental stupor and motor paralysis began to return, and by the 30th of the month he was again completely comatose and paralyzed on the left side. Death took place on the 5th of January. At the autopsy the only lesions found were in the brain. A point of softening of about the size of the finger nail lay in the caudate nucleus of the corpus striatum on the right side, and another smaller one just below in the internal capsule. The large arteries at the base of the brain were the seat of obliterating arteritis. The arteries leading to the seat of the lesions could not be traced. The case was interesting in at least two respects: first, as being another example of the cases which of late seemed to occur somewhat frequently, a class in which cerebral symptoms were dependent, not upon embolism, but upon disease of the arteries; and, secondly, with regard to such serious results following a small cerebral lesion. It was difficult to understand how so small a destruction of brain tissue could cause not only motor paralysis, but also death. There was no other way to account for death in the present case than from the cerebral lesion. Such cases were so often met with that one could almost say the prognosis as regarded death was worse in cerebral lesions of small size than in those of large size. It was true that in some cases temporary improvement in the mental and motor symptoms took place, but the latter soon returned and led to a fatal result in a brief time.

RUPTURE OF AN INTRA-MUSCULAR VEIN OF THE LEG FROM A STRAIN.—Dr. A. B. BALL related the following case: A woman sustained an injury while half dragging and half carrying her

fainting daughter to a bed. She was not conscious of any special strain at the time, but, on rising from bed several hours afterward, she found that she was quite lame in the right leg, and suffered some pain in the calf. This localized pain increased in severity during the day and night, and the leg became somewhat swollen. The pain then extended upward, reaching to about the origin of the sciatic nerve. When Dr. Ball saw the patient on the following day, he found a tumor as large as a hen's egg about three inches below the knee, at the junction of the inner with the posterior aspect of the leg. It was soft and very tender. On the posterior surface of the leg there was a spot of ecchymosis, of a yellowish color, of about the size of a twenty-five cent piece, which by the next day had extended down upon the foot. Dr. Ball supposed that the tumor was due to an extravasation of blood from a ruptured blood-vessel, probably an intra-muscular vein, and that the pain, which had increased in severity, was due to pressure of the tumor upon the nerves. The tumor was now growing smaller, but the patient was still confined to bed. She had not had gout or varicose veins.

LOW TEMPERATURE IN GENERAL TUBERCULOSIS.—Dr. H. F. WALKER narrated the history of a patient who died recently at Bellevue Hospital of general tuberculosis, the interesting point being that the elevation of temperature was only very slight throughout nearly the entire course of the disease. The patient was a man thirty-two years of age, who, for about three weeks previous to his admission, had suffered somewhat from a cough and from looseness of the bowels, which succeeded constipation. At the time of his admission, November 16, 1882, an examination of the chest revealed very slight dullness at the apices of the lungs and slight broncho-vesicular respiration; posteriorly there were signs of bronchial catarrh, and under the right clavicle there was a point of consolidation of about the size of an English walnut. The patient grew steadily weaker, the cough did not increase, but delirium developed which made it necessary to employ restraint. He died, in a state of coma, on the 26th of the month. Previous to the 21st the temperature had varied from 99° to 99.5° Fahr.; on the 21st it was 100°; on the 22d, 101.5°; on the 23d, 99°; on the 24th, 103°; on the 25th, in the morning, 98.5°; in the evening, 101.8°; on the 26th, the date of death, 103°. At the autopsy the lungs were found studded with small tubercles; there were also small spots of lobular pneumonia. The patient had been jaundiced during his illness; tubercles were found upon the capsule of the liver, and the capsule of the kidneys, the pericardium, and the tunica vaginalis were the seat of tuberculous deposits; none, however, were discovered on the membranes of the brain. The intestines were free from ulceration. During the patient's life, Dr. Walker had hesitated to make a diagnosis of general tuberculosis, on account of the almost uniformly low temperature.

Dr. DELAFIELD thought it was not unusual for cases of general tuberculosis to run their course with a temperature varying between 99° and 103° Fahr., sometimes even lower. He recalled one case in which the temperature at no time rose above 99.5°. He believed that the majority of cases in this city showed a low temperature, and when it rose to 106° or 107° it was an exception. The height of the temperature, however, varied in different places, according to statistics. In reply to a question by Dr. McCready, Dr. Delafield said he did not think that the rapidity of the course of the disease had any bearing upon this point. With regard to a question by Dr. Agnew, whether any relationship seemed to exist between the tuberculous deposit upon the membranes of the heart and the condition of the circulation, the tissue change and the temperature, Dr. Delafield replied in the negative.

INTESTINAL STRANGULATION.—Dr. DELAFIELD referred to the

case of a young man who recently died in Bellevue Hospital of intestinal strangulation. On the evening preceding the fatal illness the patient had gone to bed in good health. He awoke at three o'clock suffering from agonizing pain in the abdomen, and was brought to the hospital in an ambulance early the same morning, still suffering from exceedingly intense pain, and being apparently in a moribund condition. The abdomen was very tympanitic. Morphine was administered in considerable quantities, but the patient died within twenty-four hours from the onset of the attack. At the autopsy a hole, half an inch in diameter, was found in the mesentery, through which about six feet of the small intestine had passed and become completely strangulated.

A STATED meeting was held January 27, 1883, Dr. AUSTIN FLINT Chairman for the evening.

URINE OF LOW SPECIFIC GRAVITY CONTAINING SUGAR.—Dr. T. F. COCK said with reference to the question of urine of low specific gravity containing sugar, which had been raised at a former meeting of the society, that he had since looked over the notes of several hundred examinations of urine, made in his practice during the past three years, and had found that the lowest specific gravity of urine which contained sugar was 1.008, and the highest 1.044. There were several instances in which the specific gravity was 1.010, 1.014, or 1.015.

Dr. A. B. BALL remarked that he thought the question raised at the former meeting was not with regard to the possibility of urine of low specific gravity containing sugar; doubt was simply expressed whether urine of low specific gravity could contain sugar in large amount. In minute quantities sugar had been shown to be a normal ingredient of the urine.

Dr. AUSTIN FLINT asked whether any of the members had used bromide of potassium in the treatment of diabetes. A French physician, whose name he could not recall, had cured a number of cases with no other treatment than the administration of the bromide of potassium; hygienic restrictions were not imposed. Dr. Flint believed that he himself was the first to suggest the use of bromide of potassium in diabetes, having obtained marked benefit from its administration in a certain case about twenty years ago. It had not proved equally efficacious in other cases. Recently he had prescribed the drug in the case of a poor patient who was unable to carry out the dietetic treatment, but during the period that it was taken, which was two or three weeks, the amount of sugar in the urine increased. He had received a letter from a physician in Massachusetts who was suffering from diabetes, and who had done well on the dietetic treatment for several years; but his friends suggested that he should take bromide of potassium, and at the same time continue the dietetic treatment. He did so, and the amount of sugar in the urine, instead of being diminished, was increased, and other unpleasant effects followed. This physician knew of another similar case.

Dr. Flint mentioned a case in which diabetes had probably been present a considerable length of time, and the patient was put upon the use of the arsenite of bromide, about two drops three or four times a day. Under this treatment sugar had entirely disappeared from the urine. The dietetic treatment had first been tried, and with marked benefit, but the sugar had not entirely disappeared from the urine.

A SORE OF PECULIAR CHARACTERISTICS DEVELOPED ON THE BACK OF THE NECK.—Dr. T. M. MARKOE reported the following case: The patient was a man sixty years of age, of good habits, and in good health up to within a recent period, when, without any known cause, a sore, supposed to be a boil, developed on the back of the neck a little to one side. The center of the sore, instead of coming to a point, as it would have done

had it been an ordinary boil, became indurated, the induration involving the cutaneous, the areolar, and the fatty structure. The skin itself was perforated in a few spots by small holes. The surface was of a red, inflamed appearance, which gradually faded toward the periphery. Disintegration took place, beginning at the center, the tissue presenting a yellowish, custard-like appearance, and separating with difficulty. The sore continued to spread and to undergo this slow process of ulceration until an area was involved reaching to the back of the right shoulder and three inches to the left of the median line, up the back of the neck and head to the vertex, then down upon the side of the neck and forward to the median line and upon the clavicle. At a point near the vertex the tissues at the edges of the sore were unusually thick, causing a prominence beyond the level of the scalp. After some time the ulcerative process upon the fore part of the neck took on a more active state, dissecting the tissues as cleanly as if it had been done with a knife. The trachea and the line of the œsophagus could be seen, remaining after separation of the overlying tissue. Hoarseness developed, and the patient died of some laryngeal complication about a month after the commencement of the disease. This was the second case of the kind which Dr. Markoe had seen, the first case having occurred in a man of about the same age, the disease following nearly the same course. In that case the process involved the entire side of the head and face, destroying the tissues completely. The thickening of the margins of the ulcer upon the head was so great that the diameter of the ulcer was absolutely greater than that of the head. The destructive process was slow, and the patient died of exhaustion about a month after the development of the sore.

GAULTHERIA IN RHEUMATISM.—Dr. FLINT said that Dr. Alexander, one of the house physicians at Bellevue Hospital, furnished him the following statistics with regard to the use of gaultheria in that institution in cases of acute articular rheumatism. Of thirteen cases thus treated, of which the histories were given, one patient contracted pneumonia after the cure of the rheumatism, and died in the hospital; a second one remained in the hospital, at the expressed wish of the commissioners, some time after cure of the remaining eleven cases; the longest duration of the disease in any one case was fifteen days, and the shortest two days. The average length of time that the eleven patients remained in the hospital was a fraction less than five days. These figures would seem to point to rather better results from the drug than those which were ordinarily obtained from salicylic acid. The oil of wintergreen was the preparation used, and it was administered several times a day in ten-drop doses in flax-seed tea, which made it less disagreeable to the taste and to the stomach. In some of the cases the alkaline treatment was employed at the same time with the gaultheria.

Dr. BALL remarked that Dr. Kinnicut had used the oil of gaultheria in a number of cases of acute articular rheumatism in St. Luke's Hospital, and with even better results than those mentioned by Dr. Flint. The drug was administered in milk, and was less disagreeable when taken in this manner than salicylic acid or salicylate of sodium. Dr. Ball thought that the action of the medicine was like that of the two latter.

STRICTURE OF THE FEMALE URETHRA TREATED BY DIVISION.—Dr. F. N. OTIS related two cases as follows: The first patient had suffered severely for some time, and had received a variety of treatment for difficulty in urination, but had obtained very little relief. Upon examination, Dr. Otis found that there was a urethral stricture admitting about a No. 18 French sound. He also struck a stone in the bladder. There was cystitis. The stricture was divided to 36 mm. with the dilating urethrotome, the finger was then passed, and careful search was

made for the stone, but it could not again be discovered, probably having been concealed in the folds of the bladder, for a few days afterward a stone of small size was passed with the urine.

In the second case the stricture was evidently the result of gonorrhœal trouble, which had manifested itself within a week or two after marriage, and had continued for some time thereafter. Cystitis developed, stricture was suspected, and bougies had been passed, but they gave rise to so much pain that their use was discontinued. Dr. Otis found upon examination that there was a stricture, as in the first case, of about 18 French, which he divided, also with the dilating urethrotome, up to 36 mm. The cystitis disappeared entirely within a few weeks. Her physician was advised to pass sounds from time to time subsequently, to guard against recontraction; but, as the procedure gave her some pain, this was neglected, and recontraction took place within a month down to 26 mm. As the patient objected to another cutting operation, Dr. Otis passed the urethrometer again and turned it up to 36, and drew it out at that size. The pain from this procedure was not great; the bleeding was quite free, but soon ceased. Since that time the patient had been greatly relieved from trouble in urination. It was feared, however, that contraction would again take place. Dr. Otis remarked that these were the only two cases of well-defined stricture of the female urethra which he had seen.

Dr. Post recalled three cases of stricture of the female urethra, two of which he treated by dilatation and the other by incision, with satisfactory results.

Dr. OTIS added that there had been no trouble from loss of power in the sphincter vesicæ in either of his cases. In another case in which he performed dilatation for the purpose of removing a stone he introduced his finger as far as possible, and the lady, who was about sixty years of age, suffered for six months afterward from slight incontinence of urine upon suddenly sitting down or coughing severely. Ordinarily, the sphincter was efficient, and it finally regained its power altogether.

Reports on the Progress of Medicine.

QUARTERLY REPORT ON DERMATOLOGY, SYPHILOGRAPHY, AND GENITO-URINARY DISEASES.

No. XIV.

By EDWARD BENNET BRONSON, M.D.

THE ORIGIN OF CANCER.—In introducing this subject as a topic for discussion at the last meeting of the British Medical Association ("Brit. Med. Jour.," March 24, 1883), Mr. Hutchinson managed, as he always does, whatever the topic, to invest it with a particular interest. With regard to the local origin of cancer (using the term in a broad sense for all forms of malignant disease), Mr. Hutchinson's views were advanced and very positively and clearly stated. He is unwilling to admit that cancer should be ranked as strictly a constitutional disease. It is urged that diseases are not necessarily constitutional because capable of inheritance. While heredity may perpetuate a proclivity to the disease, it gives no clew to its mode of origin. Using the writer's own words, "the laws of inheritance—as with property so with disease—concern convection, and not origin or production. The inheritance of a fortune is a very different thing from its acquisition, and gives us no clew as to how that may have been accomplished." Thus heredity is not regarded as in any true sense a cause of cancer.

Sir James Paget, in his succeeding remarks, while agreeing

in the main with Mr. Hutchinson's position, was disposed to attach a larger share of importance to the "constitutional element," implying that it is probably a more constant factor than is generally obvious, and he referred to the common difficulty of tracing back hereditary influences for more than a generation or two.

According to Hutchinson, there are two causes of the origin of cancer. One is senility of tissue—a predisposing cause—and the other local irritation—an exciting cause.

In connection with the generally admitted fact that cancer is, with few exceptions, an appanage of old age, the writer observes that the disease may result from local senility of the particular organ or structure concerned as well as from senility of the individual. The disease is peculiarly liable to attack an organ, such as the female breast, at a period when, its function having become obsolete, it begins to undergo senile decay. "Conditions of advanced senile atrophy" are less apt to give rise to cancer than the changes incident to the inception of these conditions. In a similar way may cancer develop in "moles or other innocent forms of new growths that run their course of development more rapidly than in normal tissues," or where it succeeds to a long-continued local inflammation, by exhausting the vitality of the part and inducing a premature senility. The interesting fact is adverted to that cancer has been observed in the lower animals only among those that have become domesticated, and of which the natural longevity has been increased by artificial protection.

With regard to the second or exciting cause of cancer, the writer adduces a number of facts as illustrating the manner in which, from purely irritative processes, by gradual and insensible gradations, the cancerous disease may finally be evolved. In this connection an interesting parallel is drawn between the processes of simple inflammation and those of cancer. The infective nature of the latter, which is sometimes regarded as characteristic, is shown to be common to both. The most essential point of difference is found in the fact that while one is amenable to the action of drugs and curable, the other is almost insusceptible to therapeutic measures and incurable. But between the two there is no distinct line of division where we can say the benign process ends and the malignant begins. As representing links between them, the writer mentioned instances of syphilitic gummous disease merging into cancer, rodent ulcer, and the *esthiomène* of Huguier. With regard to the two latter diseases, Dr. Thin was disposed to take issue with Mr. Hutchinson, asserting that in the case of rodent ulcer the evidences of true cancerous changes were as decided as in any other form of cancer; to which Mr. Hutchinson objected that, while the statement was true so far as the advanced stages of the disease were concerned, there was a stage when the diagnosis was no better revealed by the microscope than by the clinical appearances. Concerning *esthiomène*, Thin maintained that histological evidence of cancer was wholly obscure, but Hutchinson, in his rejoinder, assumed that the malignant course which the disease pursued justified the diagnosis of cancer in the broad sense he had given the term, notwithstanding that the histological signs were lacking.

As to the precise nature of the changes that constitute the difference between cancerous and inflammatory formations, Mr. Hutchinson ventured only to express an opinion favorable to the theory that the malignant process consisted in a "local reversion to foetal modes of growth," the epithelial cells returning to an embryonic state, which might suggest an analogy between this state induced by the local "senility" of cancer and the "second childhood" of old age.

Thin, who rejects this theory as based upon insufficient evidence, favored the hypothesis "of feeble differentiation of the

epithelial layers in the embryo. According to this theory, the liability to cancer must be carried back to the earliest stage of embryonic life, when one set of cells took on the epithelial character, and another that of the connective tissue. If, at this period, the vital qualities of the epithelium were feebly developed, the epithelial structures would, throughout life, be liable to take on perverted action under causes more or less slight. Local irritation would be liable to cause cancerous growths in persons whose epithelium had remained permanently weakened by original fault of development."

With reference to the more practical as well as most essential points of the paper, little or no dissent was expressed in the discussion that followed. All were agreed that there was a preliminary stage in the cancerous process; or, to use the writer's own phrase, "a precancerous stage," an early recognition of which was of the greatest importance.

ANOMALOUS RASHES.—At a meeting of the Clinical Society of London, in April last ("Lancet," April 21, 1883), Dr. Whipple reported two cases of typhoid fever which were preceded by scarlatinoid rashes. The evidences, both ante- and post-mortem, of the disease, being enteric fever, were decided, but the question was raised as to whether the rashes were due to scarlet fever preceding the typhoid, or whether they were anomalous forms of eruption due to the latter disease.

In the ensuing discussion, Dr. Mahomed remarked that he had seen rashes which he termed "roseolous" in the early stage of typhoid. He distinguished four kinds of rashes in typhoid fever, viz., "roseola, rose spots, *taches bleuâtres*, and miliaria."

Dr. Cavafy observed that the fact stated in connection with Whipple's cases—that the eruption had not been followed by desquamation—was not conclusive with regard to its being a case of scarlet fever, for he had seen free desquamation follow an erythematous eruption due to salicylate of sodium.

[It is by no means a very uncommon thing to see, either at the inception or during the course of an acute febrile affection, a roseolous or erythematous rash that is not characteristic of the disease, but is evidently of reflex origin. Such are the roseola typhosa, the roseola variolosa seu erythema variolosum, the roseola vaccinia, the roseola cholericæ, and the like.]

Dr. Andrew Clark referred to the so-called "doctor's rash"—the erythematous eruption produced in nervous patients when stripped for examination—as showing the influence of the nervous system in producing such rashes.

TACHETIC SYMMETRICAL GANGRENE.—At a meeting of the Clinical Society of London, in April last (*ibid.*, May 5, 1883), Dr. Southey reported the following case: The patient was a child nine years of age—emaciated, with a dry skin, and in an excitable, semi-delirious state. The pulse was 148 and feeble; respiration, 32; temperature, 99° F. No cardiac, lung, nor other visceral disease. The extremities were cold, and the patient suffered from insomnia. The right index finger showed a spot of gangrene at its tip. After a few days, the thumb and second finger of the right hand became red, throbbled, then livid, and finally gangrenous. Later on, exactly similar spots appeared on the pinna of the right ear, on the extremity of the nose, and the tip of the middle finger of the right hand. A little later, "subcutaneous mottlings (*tachettes*)" appeared all over the trunk and limbs, and "developed into a raised rash, like urticaria tuberosa or erythema tuberculatum." The spots itched and became tender, but gradually subsided, leaving only pigment stains. Finally all the fingers and the thumb of the right hand became gangrenous and slowly separated; also the thumb, index and little finger of the left. Extreme prostration supervened, with double broncho-pneumonia. A month later the child suffered from intermittent, true *hamaturia*. This disappeared, and the child finally recovered.

SALICYLIC PASTE.—Oscar Lassar ("Monatsh. f. prakt. Dermat.") recommends for cases of eczema which show an intolerance of ointments a paste composed of equal parts of oxide of zinc and starch powder with vaselin. To this paste are added various medicaments, but, as especially useful, salicylic acid is recommended. The advantages of the preparation over the ordinary salves are stated as follows: It does not liquefy at the ordinary temperature of the body, but dries on the skin, to which it adheres so closely, wherever applied, as to render a retaining bandage unnecessary. On hairy portions of the body it is objectionable, because of its sticking the hairs together. The zinc-starch paste has no irritating properties whatever, and is well borne when simple vaselin is not. The greatest advantage, however, is said to be due to its porosity, by means of which any secretions which arise from the surface to which it is applied are absorbed instead of collecting beneath it, as is the case with ordinary ointments.

It is claimed that the addition to the paste of salicylic acid in the proportion of two per cent. adds very decidedly to its curative effect in eczema.

The following is the formula:

R
 Acid. salicyl..... 2·0 (grs. x),
 Vaseline..... 50·0 (3 iv),
 Zinci oxid.,
 Amyli aa 25·0 (3 ij).
 M. Leniter terend. fiat pasta.

Letters to the Editor.

ADVERTISING AND THE CODE QUESTION.

SANDY HOOK, CONN., June 22, 1883.

To the Editor of the New York Medical Journal:

SIR: The inclosed slip was cut from the local column of the "Newtown Bee," issue of June 22d:

"Dr. . . ., of the Manhattan Eye and Ear Hospital, New York, will be in town next week to perform an operation. Persons who wish to consult a specialist in eye, ear, or throat diseases, can see Dr. . . . at Dr. Smith's office on Tuesday, the 26th."

The writer would like to be informed whether this style of advertising is the result of the new code, or a specimen of the "gentleman's code"? If of either, I prefer to remain an

OLD-CODE MAN.

* * As the slip sent by our correspondent is said to have been taken from the "local column" of the newspaper in question, it may not have been inclosed as an advertisement, but by the editor as a piece of news. Nevertheless, the individual whom it concerns, whose name we refrain from publishing, must not conclude that the profession in New York, whatever their opinions on the code question, look upon such announcements as anything short of detestable. Our correspondent ought to know that the code controversy has nothing to do with the matter, for, if anything, the new code is more stringent in all requirements not pertaining to consultations than the old code. Even the "gentleman's code" would not tolerate such a gross breach of taste.

DAMAGES CLAIMED FOR VACCINATION.—During the compulsory vaccination ordinance lately in force in Baltimore, one George W. Watts was committed to jail in default of payment of a fine of one dollar imposed for refusing to be vaccinated. He was vaccinated at the jail, under a regulation requiring it, and now brings suit against the city and against the jail authorities for false imprisonment and forced vaccination, claiming damages in \$10,000.

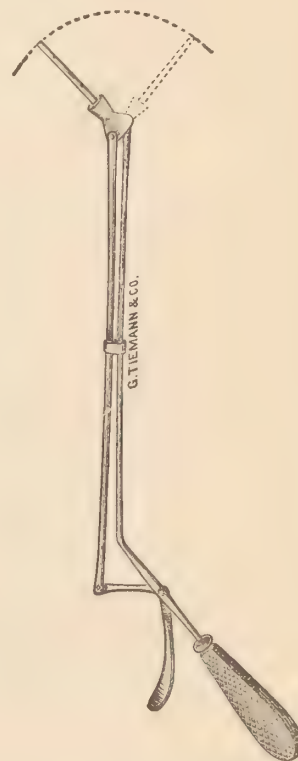
New Inventions, etc.

A NEW UTERINE REPOSITOR.

By ALFRED L. CARROLL, M. D.

NEW BRIGHTON, N. Y.

THE accompanying woodcut shows a uterine repositor, made by Messrs. Tiemann & Co., which possesses the advantage of continuous



and perfectly controllable application of power. Its construction is so simple that a glance at the engraving will render unnecessary any detailed description.

Miscellany.

ALBUMINURIC RETINITIS OF PREGNANCY.—Dr. Ryerson, of Toronto, writes: "Mrs. E., aged twenty-two, was referred to me by Dr. Temple on June 1, 1881, with the statement that the urine contained a large amount of albumin. The patient stated that her sight had been failing for about a month. She said she could see the sides of an object, but not the center; and complained of flashes of light in the dark. She had frontal headache, sometimes severely. She had no pain in the eyes. There was a great deal of nausea and vomiting. She was in the fourth month of her first pregnancy. With the right eye, she saw fingers at five feet, and read 16 Jäger; with the left, she saw fingers at three feet, and read 20 Jäger. With the ophthalmoscope I observed, in the right eye, a well-marked stellate arrangement of deposits about the yellow spot, with numerous patches scattered about the retina. The optic disc was somewhat swollen and indistinct in its outline. The appearances in the left eye were very similar, with the addition of numerous small hemorrhages in the lower half of the fundus. Dr. Temple informs me that, shortly after this, she was seized with convulsions, and had a miscarriage. She made a good recovery; and, when I saw her again on August 4th, the swelling of the optic disc had greatly diminished, the scattered patches were less marked, but stellate patches in the region of the macula were about the same as

when first seen. In the right eye, two veins apparently contained thrombi. The vision was, with the right eye, $\frac{20}{80}$, 16 Jäger; with the left eye, $\frac{20}{80}$, 16 Jäger. She could manage to write a letter. From Dr. Temple I learn that she regained good vision, but did not myself see her again. In a few months the unfortunate woman became pregnant again, although warned of the danger; convulsions supervened, and in one of them she died. *Remarks.*—It would be of considerable interest to learn in what proportion, and in what class of cases of albuminuria of pregnancy, retinitis occurs. That it does not necessarily occur, I know, having attended, some years ago, two cases in which there was no complaint of trouble of vision. One case, a woman of about thirty years, in her fourth pregnancy, made a good recovery. The other had uræmic convulsions, and died. I did not use the ophthalmoscope, but relied upon the patient's statements, the cases having occurred in my preophthalmoscopic days."—*British Medical Journal*.

MALARIA IN ITALY.—The Italian Minister of War has published a statistical map, based on the official reports from the different provincial governments about malaria, by which the extent and the intensity of this disease can be estimated. Italy counts 69 provinces, 6 of which only are completely free of this pest; in 21 provinces its ravages are most severe. It has been calculated that more than 40,000 soldiers every year have to pay their tribute to this terrible scourge. Malaria causes to the State an annual expense of two million dollars through the necessity of maintaining a number of hospitals expressly for malaria patients. The damage to the national wealth can not be calculated, but is immense; hundreds of thousands of working people in their best age are seized by the disease, and large tracts of else fertile country have to be left uncultivated. A very remarkable feature is the progress and the greater violence of the disease since the construction of railways, which circumstance is ascribed to the necessary earth-cuttings and the baring of stagnant waters. There are, in fact, some lines along which the strongest, healthiest workmen or officials stationed there are unable to resist the attacks of fever; the consequence is that the requisite working staff can be kept up with great difficulty, in spite of the exceptional high pay allowed to the men.—*Scientific American*.

SUBGINGIVAL INJECTION OF CHLOROFORM IN TOOTHACHE.—Dr. Guillot states, in the "Progrès médical" for March 24th, that he has very successfully pursued the practice, introduced by Dr. Dop, of Toulouse, of injecting chloroform into the gingival submucous tissue in toothache, which proves far more effectual than the injection of morphia. He fills a Pravaz's syringe about half full, and introduces the cannula parallel to the body of the jaw, carrying it to a depth of about two centimetres and a half, so that it almost disappears amid the tissue. No inflammation or ulceration has ever followed the injection.—*Med. Times and Gazette*.

A SIRENIFORM FÆTUS.—Dr. Raverty ("British Medical Journal") relates the following case of monstrosity: "I was called to attend Mrs. E., in her fourth confinement, on May 9, 1883. On my arrival I found the water had come away about twenty minutes before, and projecting from the os externum was a fleshy mass so unlike any usual presenting part of the fœtus to the touch, I was quite at a loss what to make of it. However, another pain coming on solved the riddle at once, the feet and leg or legs being expelled; and in a short time the shoulders and head followed. The child was alive, and continued so for eight hours. The mother made a good recovery. From the head downward to about midway between the sternum and the umbilicus it was in every respect well formed, and, to outward appearance, perfectly natural. From about that point the following particulars were noticed. There were no projections at the usual site of the crests of the ilia. The abdominal cavity was small, and seemed to be almost destitute of contents. The genito-urinary organs were represented by a small round aperture surrounded by a slightly elevated fleshy ridge. The limbs were inclosed in one continuous fold of integument, although the bones could be felt quite separate underneath; and in front there was a slight depression marking where the division ought to have been between the limbs. There was no separation of the

buttocks; in fact, there was very little of the usual projections at this point, and there was no anal orifice. The feet were joined together at the heel, and partially so at the center of the foot, but the toes were well formed, in the usual number, and free. I would have liked a post-mortem examination, but the parents objected. The mother said she had only gone eight months. There was no history of a fall or fright, except a bad dream about the fourth month."

THE LAW OF COMPENSATION.—"Puck" says: "And now the doctors smile at the prospect of business bracing up a little, for as pneumonia folds up its tent and floats silently off into the mystic past, the young man falls off his bicycle and breaks his collar bone."

THE TACTICS OF THE AMERICAN MEDICAL ASSOCIATION.—The "Philadelphia Medical Times" concludes an editorial article as follows: "We can not, however, close without a word of praise for the dexterity which was shown at the American Medical Association in so strangling all ethical rebels that none of them succeeded in crossing the sacred Æsculapian threshold, and the shades of Hippocrates suffered no dishonor, no distress over unseemly bickerings and disputings."

ARMY INTELLIGENCE.—*Official List of Changes of Officers of the Medical Department, United States Army, from June 9, 1883, to June 23, 1883.*—TILTON, HENRY R., Major and Surgeon. Granted leave of absence for four months. S. O. 136, par. 7, A. G. O., June 14, 1883. — APPEL, AARON H., First Lieutenant and Assistant Surgeon. Relieved from duty in the Department of Dakota and assigned to duty in the Department of the East. S. O. 130, par. 3, A. G. O., June 7, 1883. — POWELL, JUNIUS L., First Lieutenant and Assistant Surgeon. Relieved from duty in the Department of Texas, and assigned to duty in the Department of the East. S. O. 130, par. 3, A. G. O., June 7, 1883. — RICHARD, CHARLES, First Lieutenant and Assistant Surgeon. Relieved from duty in the Department of Dakota, and assigned to duty in the Department of the East. S. O. 130, par. 3, A. G. O., June 7, 1883. — GORGAS, W. C., First Lieutenant and Assistant Surgeon. The leave of absence granted in par. 5, S. O. 51, C. S., Department of Texas, extended one month. S. O. 63, Military Division of the Missouri, June 19, 1883. — WYETH, M. C., First Lieutenant and Assistant Surgeon. Assigned to duty at Fort Maginnis, M. T. S. O. 103, par. 2, Department of Dakota, June 14, 1883.

NAVAL INTELLIGENCE.—*Official List of Changes in the Medical Corps of the Navy for two weeks ending June 23, 1883.*—Surgeon Edward Kershner, from Marine Barracks, Brooklyn, to the Navy Yard, Brooklyn. — Medical Director John Y. Taylor, from the Naval Hospital, Washington, to the Naval Hospital, Norfolk, Va. — Medical Director James Suddards, from the Naval Hospital, Norfolk, Va., and waiting orders. — Medical Director T. J. Turner, from the National Board of Health, and waiting orders. — Medical Director Charles Martin, from the Navy Yard, New York, and awaiting orders. — Medical Inspector John C. Spear, from the Naval Medical Board to the Navy Yard, New York. — Assistant Surgeon Oliver Diehl, United States Practice Ship Dale, to report to the Medical Board for examination, preliminary to promotion. — Medical Inspector David Kindlberger, and Medical Director F. M. Gunnell, to the Retiring Board. — Passed Assistant Surgeon M. H. Crawford, from the Navy Yard League Island, Pa., to the United States steamer Pinta. — Surgeon Jerome H. Kidder, resigned, to take effect June 18, 1884, and granted leave till that time. — Medical Director Thomas J. Turner, orders of the 7th June modified to continue on duty as a member of the National Board of Health till June 30, 1883.

SOCIETY MEETINGS FOR THE COMING WEEK.—*Monday, July 2d:* Utica Medical Library Association. *Tuesday, July 3d:* Elmira Academy of Medicine; Buffalo Medical Association; Ogdensburg Medical Association; Croton Medical and Surgical Union (Katonah, N. Y.—annual); Medical Society of the County of Hudson, N. J. (Jersey City); Medical Society of the County of Union, N. J. *Wednesday, July 4th:* Medical Society of the County of Richmond, N. Y. (Stapleton—annual). *Thursday, July 5th:* Society of Physicians of the Village of Canandaigua, N. Y.

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